

TOSHIBA

COLOUR VIDEO CASSETTE RECORDER

V-9600



SPECIFICATION

General

Video recording system: Head configuration 2-head rotary

Video signal: CCIR standard, PAL colour

Storage temperature: -20°C to $+60^{\circ}\text{C}$ (-4°F to $+140^{\circ}\text{F}$)

Operating temperature: 5°C to 40°C (41°F to 104°F)

Antenna: 75-ohms external antenna terminal for UHF

Channel coverage: VHF channels 2 ~ 12

UHF output signal: UHF channels 21 - 68

Power requirements: UHF channels E31 to E39 (Variable)

Power consumption: 220V AC50 Hz

Weight: 34W

Dimensions: 11 kg

Dimensions: 480 x 165 x 310 mm (W/H/D) (18.9 x 6.50 x 12.20 inches) (W/H/D)

Video

Input: VIDEO LINE IN:
Phono-type connector
1.0V (pp)
75-ohms unbalanced, sync. negative

Output: VIDEO LINE OUT:
Phono-type connector
1.0V (pp),
75-ohms, unbalanced, sync. negative

Signal to noise ratio: Better than 42 dB

Audio

Input: AUDIO LINE IN:
Phono-type, 50K ohms, -10 dB

Output: AUDIO LINE OUT:
Phono-type, less than 47k ohms, -5 dB, unbalanced
50 Hz to 8,000 Hz

Frequency response: Better than 40 dB

Signal to noise ratio:

Tape transport

Tape speed: 18.73 mm/sec.

Maximum recording time: 3 hours 15 min. (with L-750)

Fast forward time: Within 4.5 min. (L-500)

Rewind time: Within 4.5 min. (L-500)

Timer

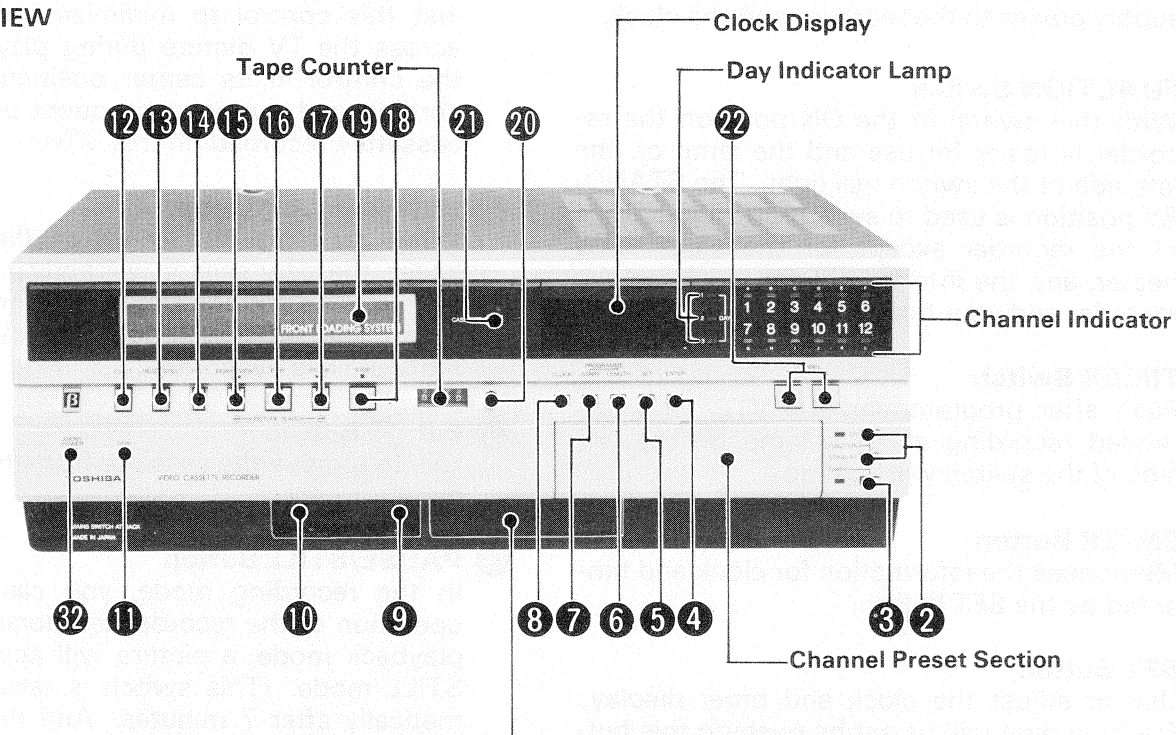
LED digital display
Count down from AC line frequency.

Design and specifications are subject to change without notice.

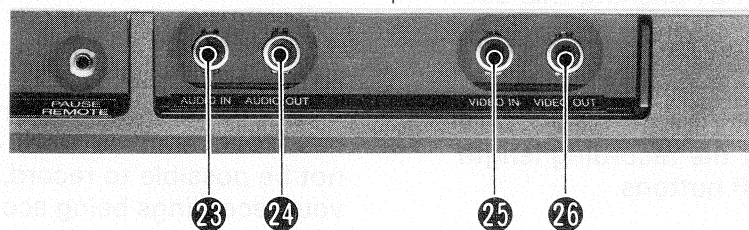
Caution Copyright Act 1956 Users of video recording equipment should note that it may be unlawful to record television broadcasts, cinematograph films or video recording without the permission of the relevant copyright owner.

GENERAL FUNCTIONAL PARTS AND WHAT THEY DO

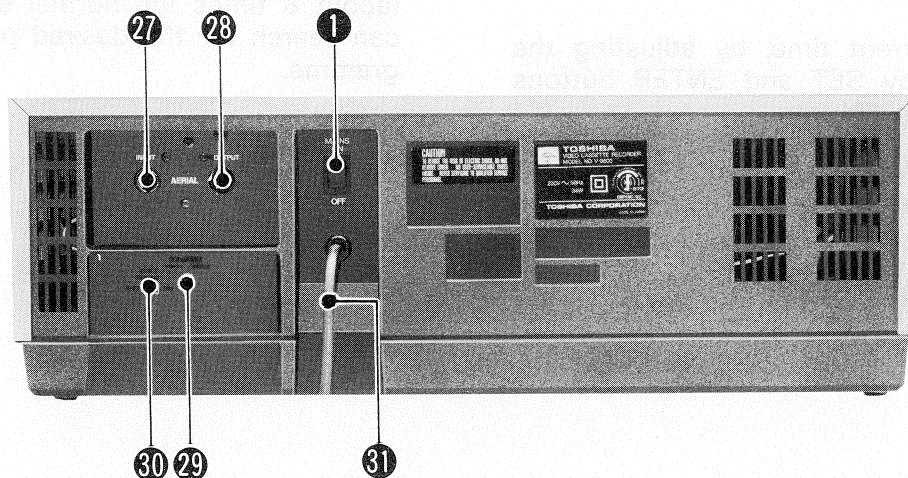
FRONT VIEW



Inside the Door VIEW



FACE ARRIÈRE



1 MAINS Switch

The mains power switch is located at the rear of the recorder. Switching this ON will supply power to the recorder and the clock.

2 FUNCTION Switch

With this switch in the ON position the recorder is ready for use and the lamp on the left side of the switch will light. The STAND-BY position is used to switch off all functions of the recorder except for the clock, dew heater, and the interface circuit between the recorder and your television receiver.

3 TIMER Switch

Push after programming the VTR for unattended recording and the lamp on the left side of the switch will light up

4 ENTER Button

Memorises the information for clock and timer fed by the SET button.

5 SET Button

Use to adjust the clock and timer display. Flashing digit will be set by pushing this button.

6 LENGTH Button

For setting the recording length time while pushing this button, set the recording length by using SET and ENTER buttons.

7 START Button

For setting the timer to the desired start time of unattended recording, while pushing this button, set the start time by using SET and ENTER buttons.

8 CLOCK Button

Set to the current time, by adjusting the clock display by SET and ENTER buttons while pushing this button.

9 PAUSE REMOTE Jack

Used to connect the remote control. Pause in Rec or STILL in Play function can be controlled from the remote control.

10 TRACKING Knob

Used when playing cassettes recorded on other machines using the Beta system. Adjust this control to minimize black streaks across the TV picture during playback. Set the control in its center position when recording and during subsequent playback of cassettes recorded on this VTR.

11 Dew Indicator Lamp

When moisture condenses on the head cylinder, the dew sensor will activate and stop all functions and the Dew Indicator Lamp will light. The VTR will not operate until the moisture has evaporated.

12 EJECT Button

Use to remove the cassette from the cassette compartment.

13 PAUSE/STILL Button

In the recording mode, you can stop the operation of the recorder temporarily. In the playback mode, a picture will appear in the STILL mode. (This switch is released automatically after 7 minutes. And the recorder will return to the previous function.)

14 RECord Button

Push this button to record. If the safety tab has been removed from the cassette, it will not be possible to record, thereby preventing your recordings being accidentally erased.

15 REW/REVIEW Button

The REW/REVIEW Button serves a dual purpose. Push for rewinding of the tape. When this button is pushed during the playback mode, the picture moves quickly backward (about 8 times the normal speed) and you can search for the desired part of the programme.

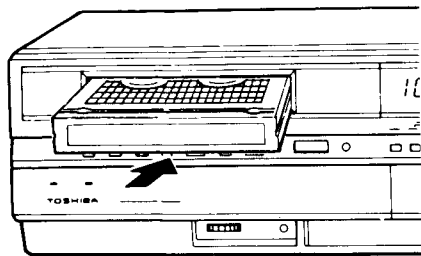
- 16 PLAY Button**
Push for playback of recorded tape.
- 17 FF/CUE Button**
The FF/CUE Button serves a dual purpose. Push for fast forward the tape. When this button is pushed during the playback mode, the picture moves quickly forward (about 8 times the normal speed) and you can search for the desired part of the programme.
- 18 STOP Button**
Push to stop. All operating modes are cancelled.
- 19 Cassette Compartment**
When the cassette is inserted in this compartment, the cassette will automatically be ready for operation. The cassette indicator lamp will light.
- 20 Counter Reset Button**
Used to set the tape counter to the '0000' position.
- 21 Cassette Indicator Lamp**
When the cassette is correctly positioned in the VTR, the cassette indicator lamp will light.
- 22 Channel Select Buttons**
Use to select the channels you wish to view or record.
- 23 AUDIO IN Terminal**
Used for connecting an audio input from other equipment.
Connecting a plug into this jack cuts off the audio signal coming from the tuner and records the audio signal connected to this "AUDIO IN" Jack. Disconnecting the plug automatically resumes the audio signal from the tuner.
- 24 AUDIO OUT Terminal**
An audio signal is available for use by other equipment.
- 25 VIDEO IN Terminal**
Used for connecting a video camera or other video equipment.
Connecting a plug into this jack cuts off the picture from the tuner and records the video signal connected into the "VIDEO IN" Jack. Disconnecting the plug automatically resumes the picture from the tuner.
- 26 VIDEO OUT Terminal**
Provides a video signal from the recorder for use by other equipment.
- 27 AERIAL IN Terminal**
Connect your television antenna to this terminal.
- 28 AERIAL OUT Terminal**
Connect this terminal to your television receiver, using the cable provided.
- 29 VTR UHF OUTPUT**
The output from the recorder to your television receiver can be adjusted to any channel from 31 to 39 by using this screwdriver adjustment, as described under "Preliminary Adjustments".
- 30 TEST SIGNAL Switch**
Provides a test signal to assist you to tune your receiver to the output of the video recorder, as described under "Preliminary Adjustment".
- 31 Power Cord**
Connect this cord into the AC outlet (AC 240V).
- 32 Mains Power Indicator Lamp**
When the MAINS Switch is ON, the Mains Power Indicator Lamp will light.

CAUTION

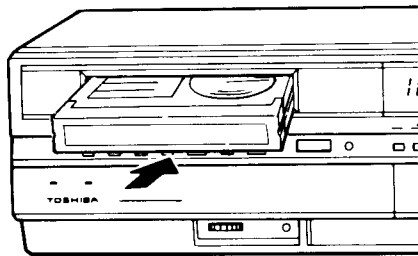
- * Do not install the VTR in a location near heat sources, such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- * Do not place anything heavier than 10 kg on the VTR.
- * Allow adequate air circulation to prevent internal heat buildup. Do not place the VTR on soft surfaces (rugs, blankets, etc.) or too near materials (curtains, draperies).
- * Keep the set and the video cassette away from strong magnetic fields.
- * To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- * Do not drop any inflammable or metallic objects or liquid into the inside of the VTR. This may cause damage to the set.
- * Should any liquid or solid object fall into the cabinet, unplug the VTR and have it checked by an authorized Toshiba dealer before operating it any further. Condensation (dew) may occur if the VTR is subject to extreme temperature changes such as when it is moved from a very cold outdoors to a very warm room. The safety mechanism in the VTR stops operation immediately if condensation has occurred within the VTR.
Normal operation can be resumed when the condensation has evaporated.
- * Do not hit or shake the set when moving it. This may cause damage.
- * Make the connection between the AERIAL terminal on this VTR and the AERIAL antenna terminal of a TV receiver as instructed in "ANTENNA CONNECTIONS". Never connect the output of the VTR to an antenna or make simultaneous (parallel) antenna and VTR connections at the antenna terminals of your receiver.
- * After playing a tape, remove the cassette from the VTR if it will not be used for any length of time.
- * Save the original shipping carton and packing materials; they will come in handy if you ever have to transport your VTR. For maximum protection, repack the set as it was originally packed at the factory.

CORRECT METHOD TO INSERT THE CASSETTE

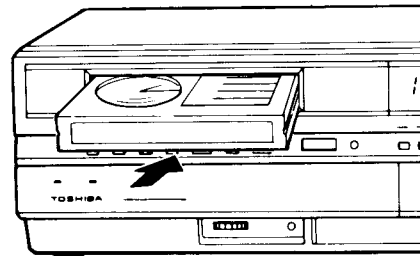
1. MAKE SURE THE CASSETTE IS THE RIGHT WAY UP



✗ incorrect
(turn upside down)

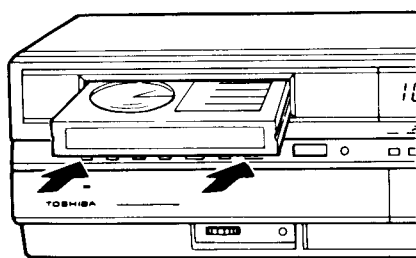
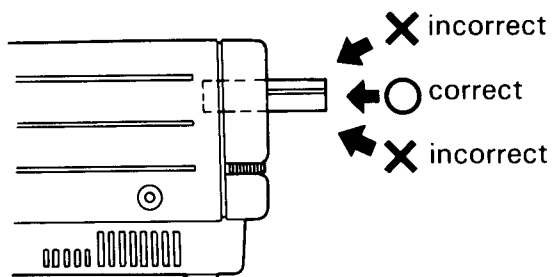


✗ incorrect
(turn rightside left)

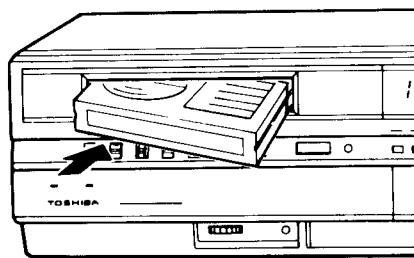


○ correct

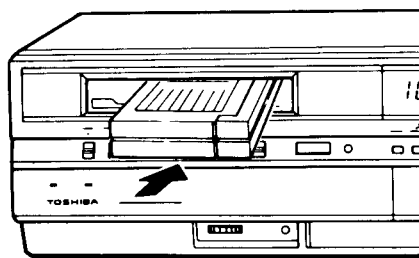
2. KEEP THE CASSETTE LEVEL WHEN YOU PUSH IT IN



The cassette must be
square in the opening.



✗



✗

Notes; * To insert the cassette horizontally.
* Do not insert anything except cassette.

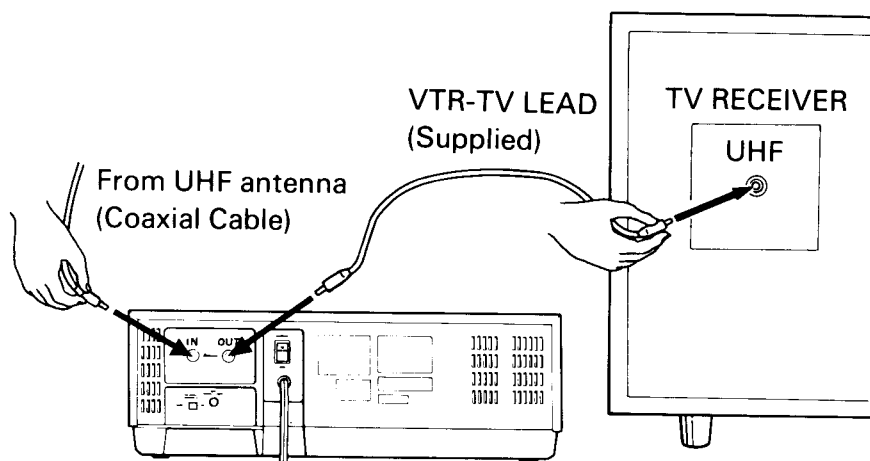
ANTENNA CONNECTION

UHF TV Antenna Connection.

Remove the antenna lead from the back of your TV receiver and plug it into the rear of the recorder at the terminal marked AERIAL IN.

VTR-TV Connection.

Connect one end of the cable supplied to the antenna terminal of your TV receiver and the other end to the terminal marked AERIAL OUT at the back of the recorder. Note that the ends of this cable are not the same, so that only one end will fit the television terminal.



PRELIMINARY ADJUSTMENTS

1. Switch on your TV receiver and select an unused channel button. If your receiver is supplied with a channel button expressly intended for use with a video recorder, then select that button.
2. Switch on the recorder at the mains switch located at the rear.
3. Refer to the section headed "List of Controls" and check that the controls are set to the following positions:

FUNCTION Switch ②	set to ON
TEST SIGNAL Switch ③⑩	set to ON (on rear panel of VTR)

4. Your recorder will now be supplying a test signal to the TV receiver and this can be tuned by adjusting the selected channel until the black and white pattern shown below right is clearly displayed.
5. The test signal is on a channel between 31 and 39 and is set during production. However, in rare cases you might experience some interference from an adjacent broadcast channel. This can be overcome by changing the output channel of the recorder, and this is done by turning the small screwdriver-adjusted VTR UHF OUTput (29) on the rear panel. Retune your receiver to suit the new output channel.
6. Switch the TEST SIGNAL switch to OFF.



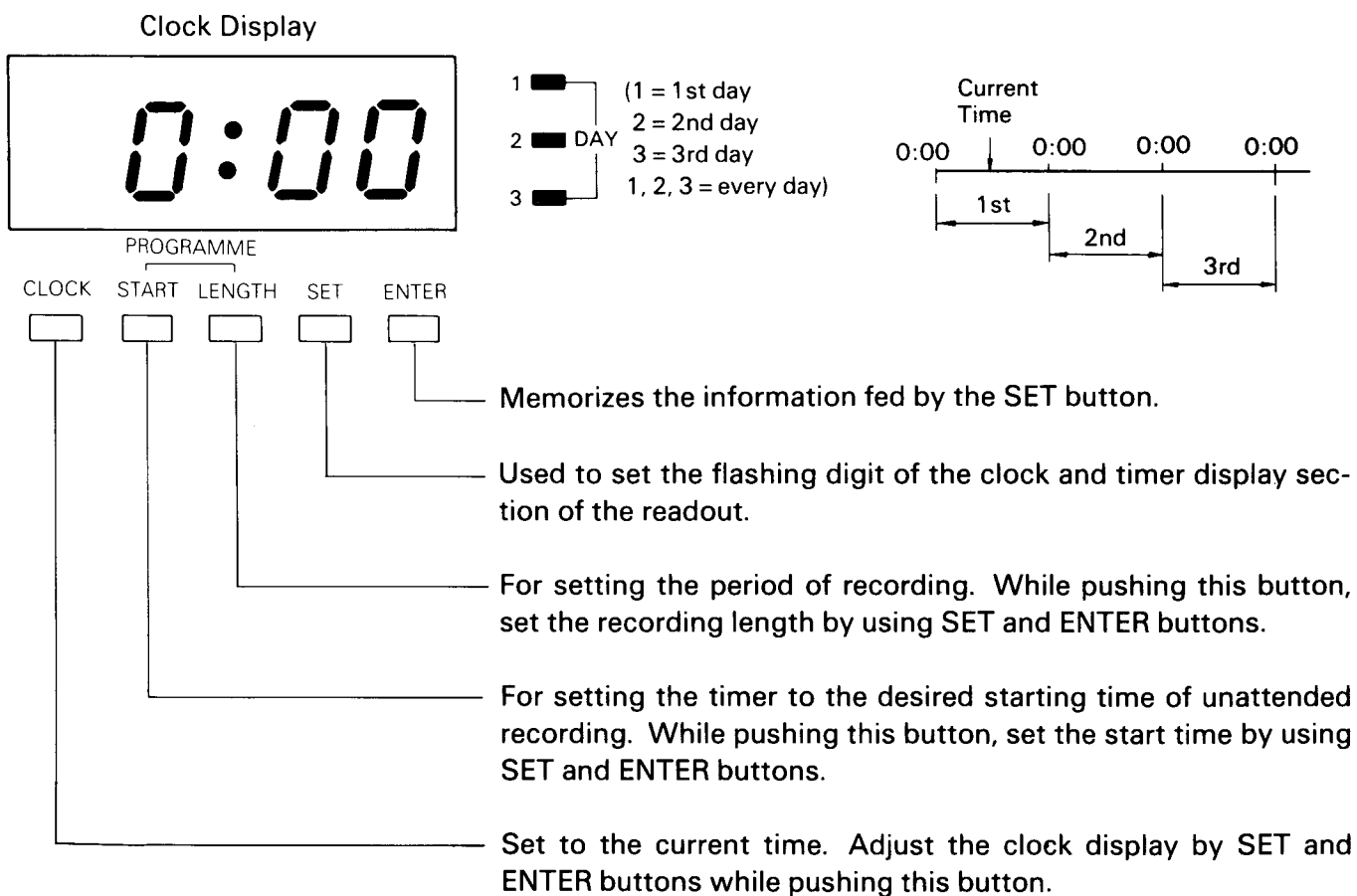
Test Pattern

TIMER

PROGRAMMABLE TIMER

- * This timer can reserve one recording time of one channel for today or tomorrow or the day after tomorrow or one program at the same time for everyday. (For 3 days including today.)
- * If power to the VTR is interrupted, the clock will continue to run and the programming will not be disturbed for about 2 seconds.
After 2 seconds of power interruption if the clock is flashing 0:00. The clock and programming will have to be reset.

DESCRIPTION OF SETTING SWITCHES AND BUTTONS



Programming

- * The MAINS switch and FUNCTION switch must be ON when programming the timer.
- * After programming is completed, push the TIMER switch.
- * It is not necessary to push the RECord button as this is automatic in the TIMER mode.

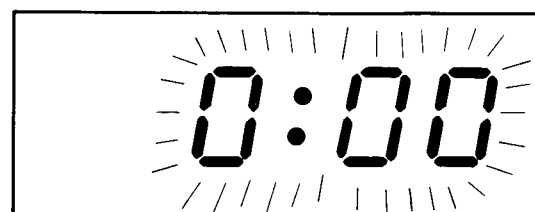
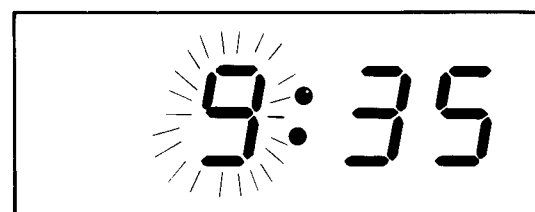
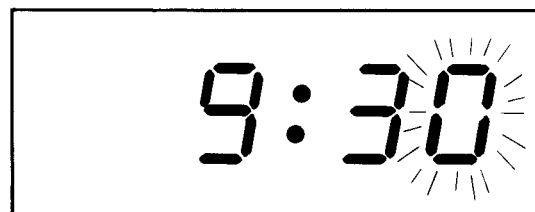
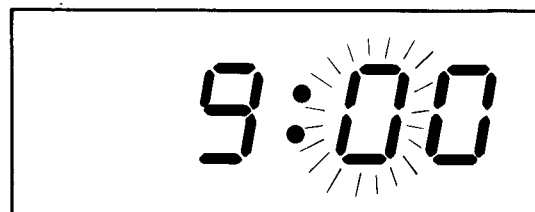
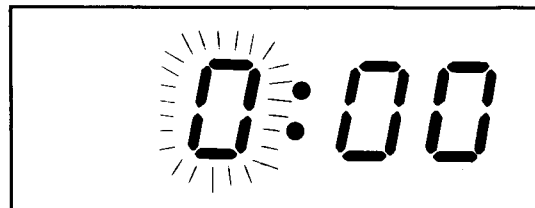
< Setting the Current Time >

Example: 9:35

- a) FUNCTION switch may be ON or STAND BY.
- b) Keep on pushing the CLOCK button while setting the current time through step c to step e.
- c) Push the SET button until the hour portion reads 9 (current hour). Release the SET button and push the ENTER button. The 10 minute portion will now flash.
- d) Push the SET button until the 10 min. portion reads 3. Then push the ENTER button. The 0 min. portion will now flash.
- e) Push the SET button until the 0 min. portion reads 5. Then push the ENTER button. The hour portion will now flash.
- f) Release the CLOCK button when the correct time has been set.

Notes:

- * 0:00 flashing indicates that power failure or disconnection of the power plug has occurred, readjust the current time and programme.
- * Be sure to set the current time before adjusting the programme.



< Presetting the Programmable Timer >

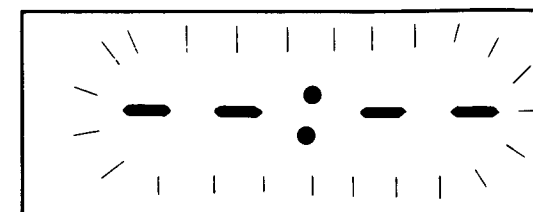
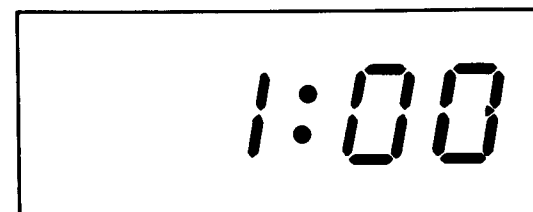
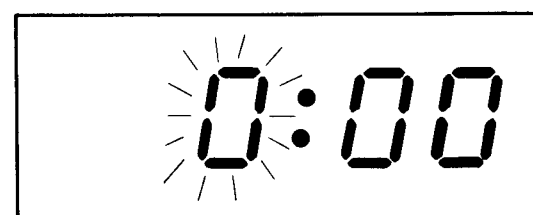
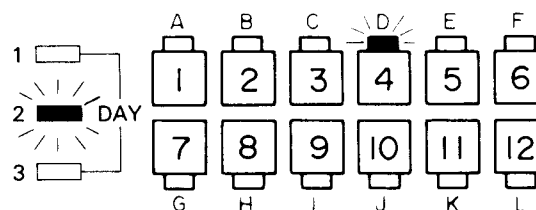
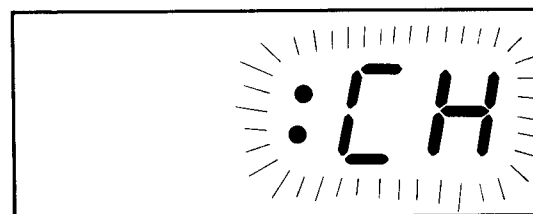
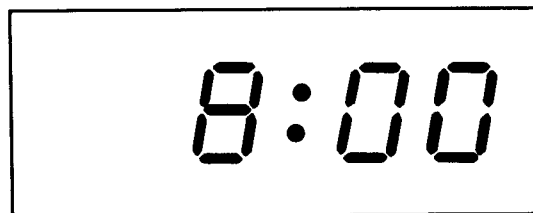
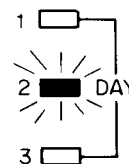
Example 1.

(2nd day 8:00 ~ 9:00, channel 4)

- a) FUNCTION switch must be ON.
- b) Keep on pushing the START button while setting the start time of recording through step c to step e.
- c) Push the SET button until the 2nd Day indicator lamp will light. Push the ENTER button. (The hour portion will now flash.)
- d) Push SET button until hour reads 8.
 – Push ENTER
 Push SET button until 10 min. reads 0.
 – Push ENTER
 Push SET button until 0 min. reads 0.
 – Push ENTER
 (The CH indication will now flash.)
- e) Push SET button until the desired channel is reached. Push the ENTER button.
- f) Release the START button.
- g) Keep on pushing the LENGTH button while setting the recording time as step h. (The hour portion will now flash.)
- h) Push SET button until hour reads 1.
 – Push ENTER
 Push SET button until 10 min. reads 0.
 – Push ENTER
 Push SET button until 0 min. reads 0.
 – Push ENTER
- i) Release the LENGTH button.
- j) Push the TIMER switch.

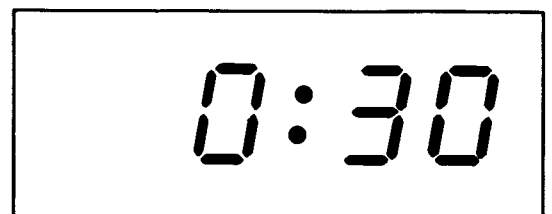
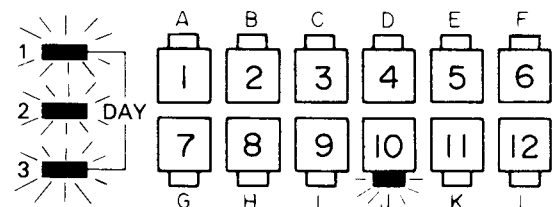
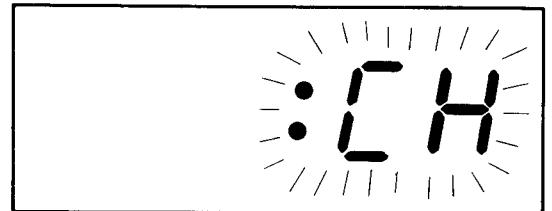
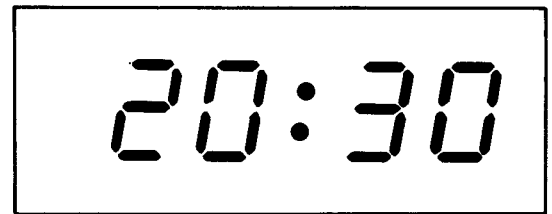
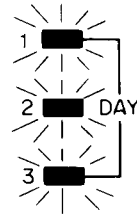
Notes:

- * If the length of recording is set to 0:00 or the tab on the reverse side of the cassette is removed, the timed recording cannot be carried out, and the flashing indication --:-- will be displayed when the TIMER switch is pushed.
- * Correct the OFF time again or replace the cassette with another having tab.



Example 2.
(Everyday 20:30 ~ 21:00,
channel ITV 10)

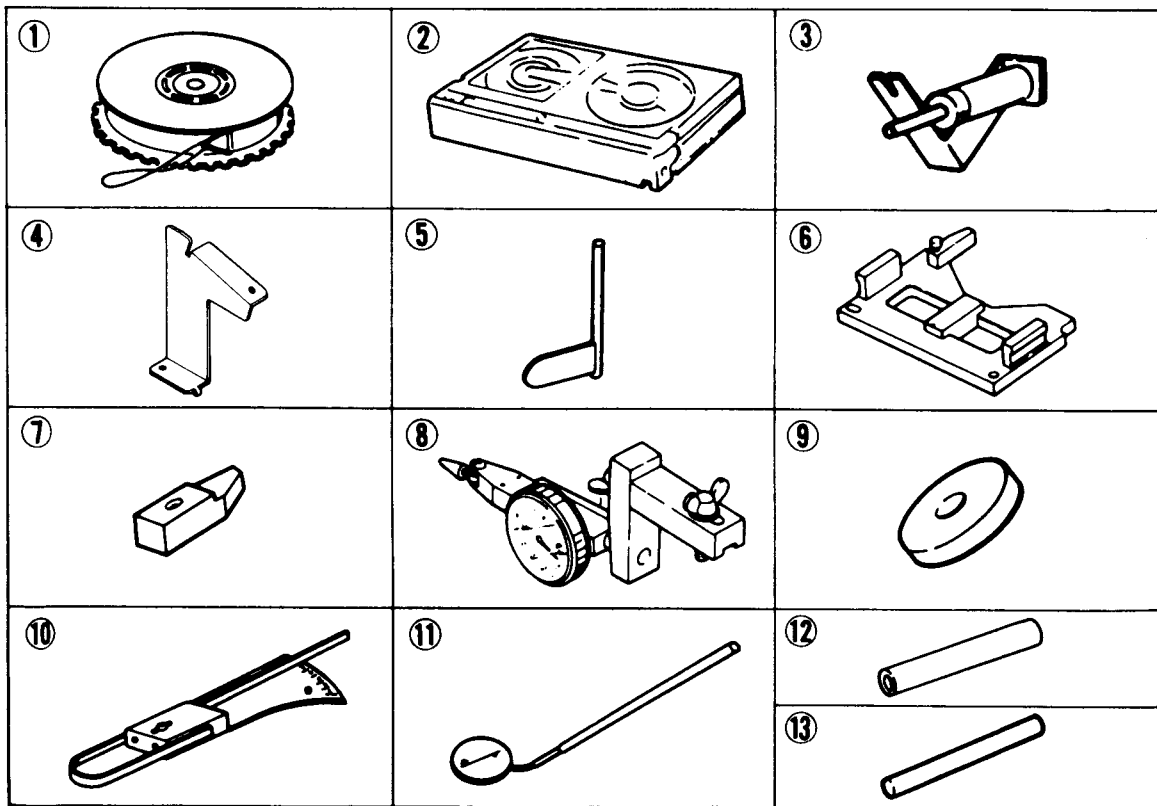
- a) FUNCTION switch must be ON.
- b) Keep on pushing the START time while setting the start time of recording through step c and step e.
- c) Push the SET button until the Day indicator lamp will light wholly. Push the ENTER button.
 (The hour portion will now flash.)
- d) Push SET button until hour reads 20.
 – Push ENTER
 Push SET button until 10 min. reads 3.
 – Push ENTER
 Push SET button until 0 min. reads 0.
 – Push ENTER
 (The CH indication will now flash.)
- e) Push SET button until the desired channel is reached. Push the ENTER button.
- f) Release the START button.
- g) Keep on LENGTH button while setting the recording time as step h.
 (The hour portion will now flash.)
- h) Push SET button until hour reads 0.
 – Push ENTER
 Push SET button until 10 min. reads 3.
 – Push ENTER
 Push SET button until 0 min. reads 0.
 – Push ENTER
- i) Release the LENGTH button.
- j) Push the TIMER switch.



TOOL AND JIGS REQUIRED

NAME	CODE NO.	JIG NO.	QTY	SKETCH NO.	REMARK
Forward Back-Tension Measurement Jig Fixture	70909025	SL-0002	1	1	○
T type Torque Measurement Cassette	70909031	SL-0003	1	2	x
R-F type Torque Measurement Cassette	70909030	SL-0004	1	2	x
Forward Tension Alignment Jig	70909005		1	3	○
Back-Tension Bracket	70909075		1	4	○
Loading Ring Clearance Gauge	70909018	SL-0007	1	5	○
Cassette Reference Plate	70909019	SL-0008	1	6	○
Tape Guide Adjustment Jig	70909036		1	7	○
Rotating Head Disk Alignment Jig Fixture (Eccentricity Gauge)	70909021	SL-0012	1	8	○
Reel Table Retainer Removal Jig	70909065		1	12	○
Capstan FG Adjustment Jig (B)	70909068		1	9	○
Tension Gauge (Max. 100g)	70909024		1	10	○
Tension Gauge (Max. 200g)	70909012		1	10	x
Tension Gauge (Max. 500g)	70909029		1	10	○
Dental Mirror	70954003		1	11	○
Alignment Tape (KR5-2H)	70955083		1		○
Capstan FG Adjustment Jig (A)	70909066		1	13	○

Note: ○ . . . Indispensable tool x . . . Not indispensable tool



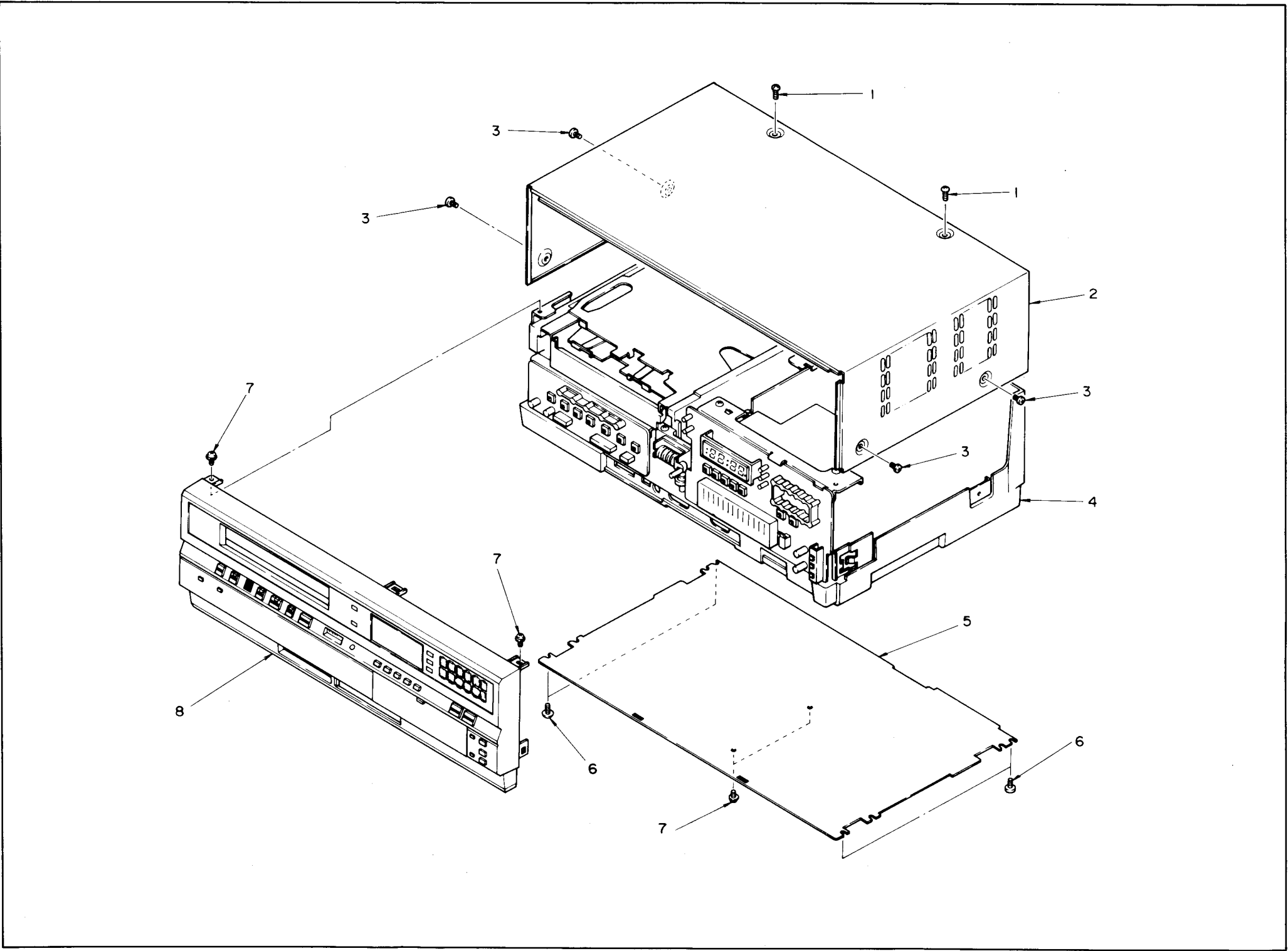
EXPLODED VIEWS AND MECHANICAL PARTS

1. CABINET ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	A102B	70814181	Screw, Decoration	
2	A102		Top Cover	
3	A102A		Screw, 4 × 0.7 × 6 MM	
4	B601	70841245	Chassis Frame	
5	A103		Bottom Cover	
6	A103A		Screw, 4 × 12 MM Tapping	
7	A103B	70812210	Screw, 3 × 6 MM	
8	A101		Front Panel	

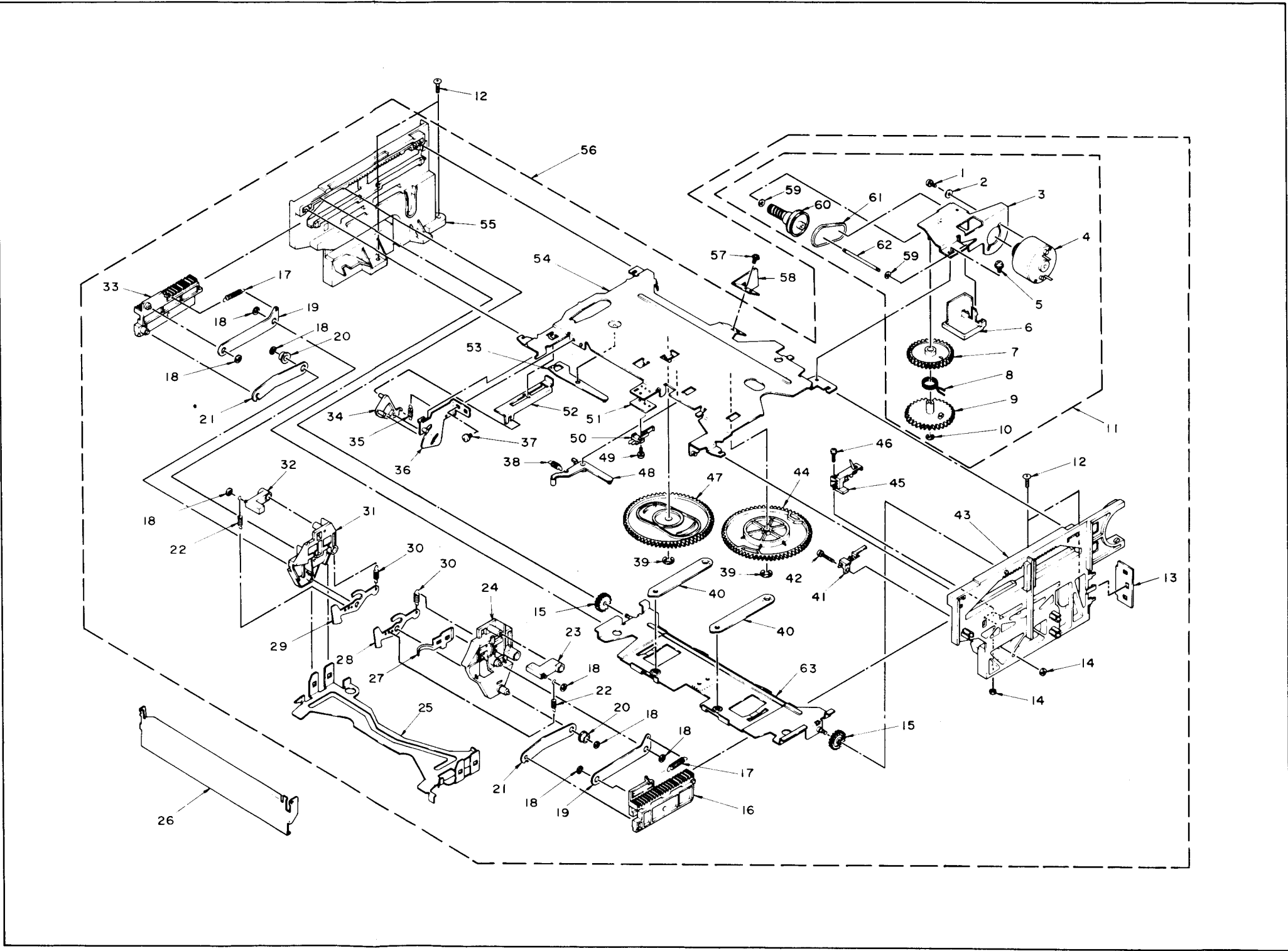
NOTE:

Parts without Parts number in Parts List are not available as replacement parts.



2. FRONT LOADING ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	K381A	70324182	Screw, 2.6 × 4 MM	
2	K381B		Washer, 2.6 MM	
3	K372A		Bracket, FL Drive	
4	K381		Motor Assy	
5	K371A	70394075	Screw, 3 × 6 MM	
6	K379		Grease Guard	
7	K373		Gear, Idle Exit	
8	K374		Spring, Idle Spring	
9	K375		Gear, Idle Entrance	
10	K376		E Ring	
11	K371		Drive Assy, Front Loading	
12	K301A		Screw, 3 × 12 MM	
13	U621		PC Board, Front Loading	
14	S652E		Nut 2.6 MM	
15	K309	70861014	Gear Pinion	
16	K339		Slider, Slide Rack (R)	
17	K341		Spring, Cassette up Spring	
18	K340		Washer, 2.4 MM	
19	K332		Link, (A)	
20	K335		Guide Roller	
21	K334		Link, (B)	
22	K330		Spring, Connector	
23	K327		Cassette Detect Lever (R)	
24	K324		Bracket, Holder (R)	
25	K321	70351482	Cassette Holder Assy	
26	A104		Door	
27	K325		Spring	
28	K328A		Relay Lever (R)	
29	K328		Relay Lever (L)	
30	K329		Spring	
31	K323		Bracket, Holder (L)	
32	K326		Cassette Detect Lever (L)	
33	K337		Slider, Slide Rack (L)	
34	K305		Lever, Door	
35	K306	23002400	Spring	
36	K307		Door Bracket Assy	
37	K308		Screw, 3 × 6 MM	
38	K360		Spring	
39	K358	70145168	E Ring 4 MM	
40	K304		Link, Clank	
41	S652	70145111	Switch, Leaf	
42	S652D		Screw, 2.6 × 25 MM	
43	K392	70145185	Bracket, Slide Rack Guide (R)	
44	K357		Gear, Exit Gear (R)	
45	S653	70867048	Switch, Error Erase Prevention	
46	S653D		Screw, 2.6 × 15 MM	
47	K355	70314030	Exit Gear (L)	
48	K359		Lever, Switch	
49	S651E		Screw, 2 × 4 MM, Machine	
50	S651		Switch, Leaf	
51	S651F		Sheet	
52	K354		Slider, Door	
53	K353		Cam Rock Lever Assy	
54	K352		Top Board Assy	
55	K302		Bracket, Slide Rack Guide (L)	
56	K301		Front Loading Assy	
57	K365A	70342083	Screw, 3 × 6 MM	
58	K365		Bracket, Cassette Stopper	
59	K378		Polyslider	
60	K377		2.6 × 4.7 × 0.5 MM	
61	K380		Worm Gear Assy	
62	K372C		Belt, Square Loading	
63	K303		Worm Post	
			Slider Assy.	

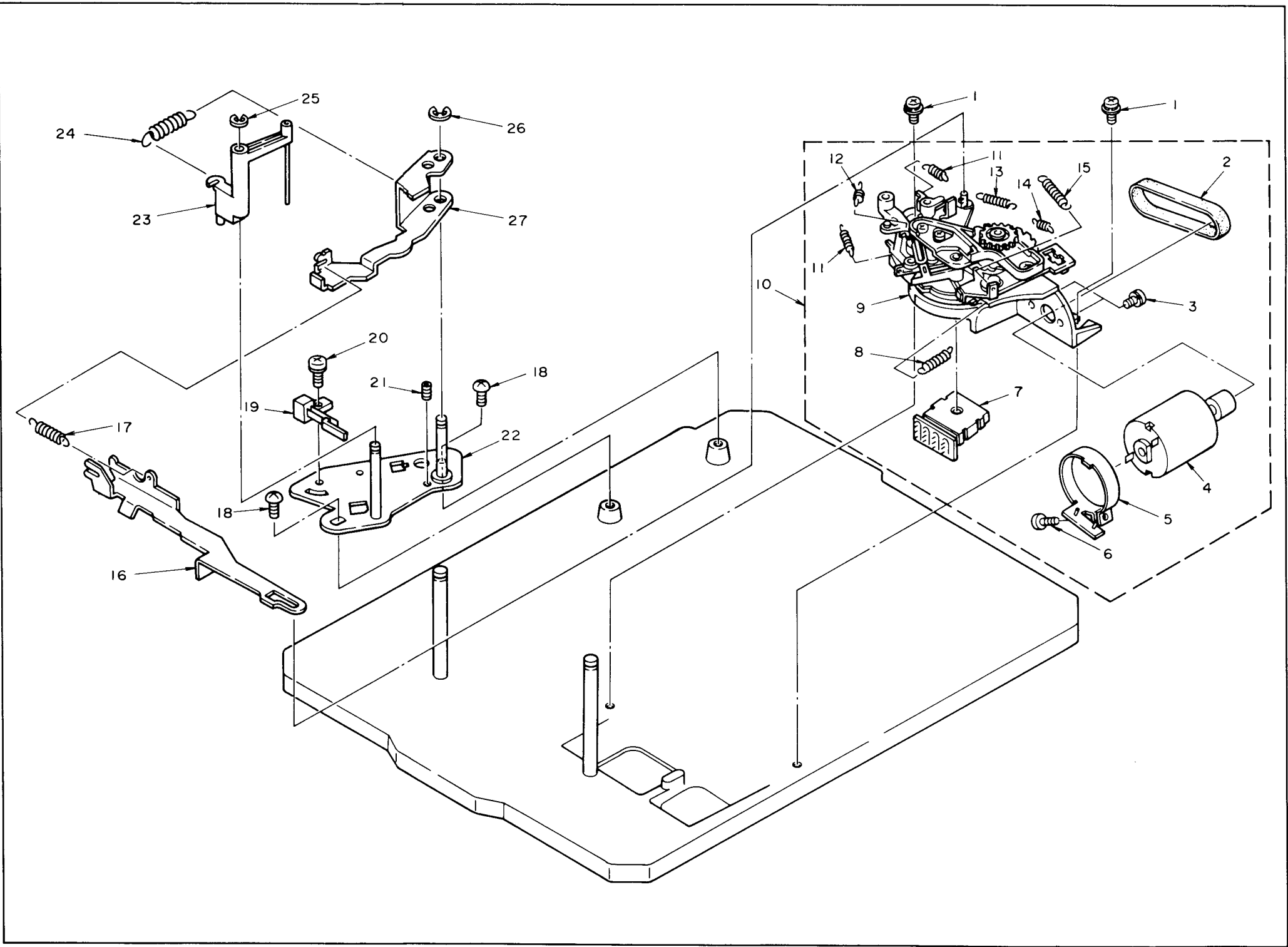


NOTE:
Parts without Parts number in Parts List are not available as replacement parts.

3. LOADING CAM UNIT COMPARTMENT ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	B501A		Screw, 3 × 8 MM	
2	B508	70342092	Belt, Loading Cam	
3	B504		Screw, 2.6 × 6 MM	
4	B503	70322168	LC Motor Assy	
5	B503A		Shield Assy	
6	B503C		Screw, 2.6 × 6 MM	
7	B509	70145175	Rotary Switch, Cam	
8	B533	70351408	Spring, Reverse Prevention	
9	B502		LC Motor Bracket Assy	
10	B501	70312068	LC Drive Assy	
11	B527	70351403	Spring, Lock Arm, A	
12	B523	70351404	Spring, Lock Arm, B	
13	B519	70351402	Spring, Cam Arm	
14	B510	70351398	Spring, Ratchet	
15	B529	70351405	Spring, Lock Arm	
16	B151		Cam Link	
17	B152	70351465	Spring, Pinch Lock	
18	B120A		Screw, 3 × 8 MM	
19	S656	70145168	Swtich, Leaf	
20	S656A		Screw, 2.6 × 6 MM	
21	B125		Screw, 3 × 5 MM, Set	
22	B121		Bracket Assy, Pinch Lock	
23	B123	70321513	Lever Assy, Slack Sensor	
24	B124	70351483	Spring, Slack Lever	
25	B123C	70394075	E Ring, 2.3 MM	
26	B122A		E Ring, 3 MM	
27	B122		Pinch Lock Lever	

NOTE:
Parts without Parts number in Parts List are not available as replacement parts.

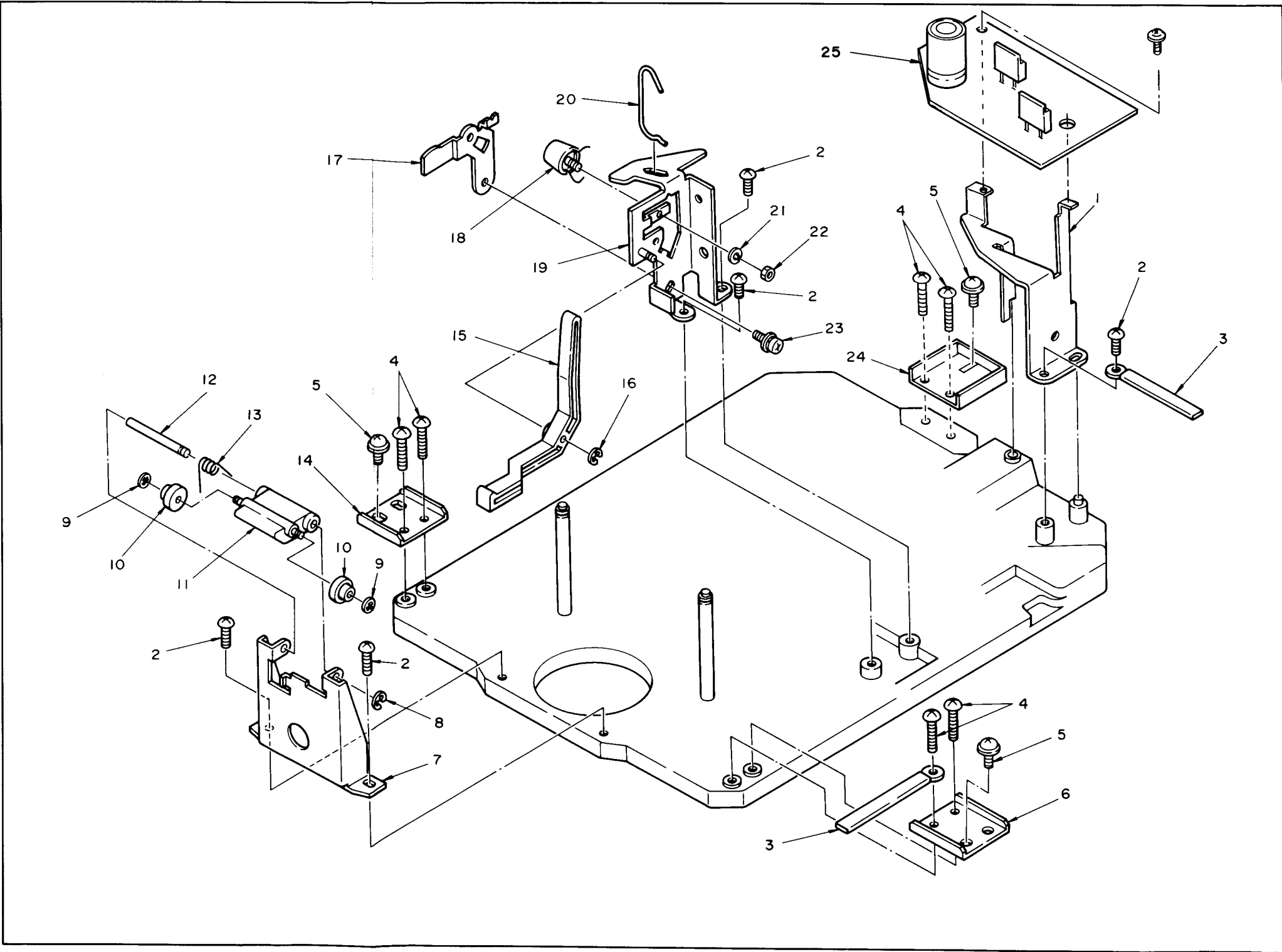


4. MAIN CHASSIS ASSEMBLY (RIGHT SIDE)

Key No.	Location No.	Part No.	Description	Remark
1	B181		Pinch Bracket	
2	B181A		Screw, 3 × 8 MM	
3	W210		Lead Holder	
4	B612A		Screw, 3 × 12 MM	
5	B512B		Screw, 4 × 12 MM	
6	B612		Bracket	
7	K269		Bracket	
8	K273	23002150	E Ring, 1.5 MM	
9	K275		Washer	
10	K274	70348065	Roller, Cam Follower	
11	K271		Lever, Double	
12	K272		Post, Double	
13	K276		Spring	
14	B611		Bracket	
15	K255		Lever, Cover Open	
16	K256	70394075	E Ring, 2.3 MM	
17	K253		Lever, Level Adjust	
18	L661	70212003	Coil, Sensing, 0.18 MHz	
19	K152		Opener Assy, Cassette Compartment	
20	K257		Earth Wire	
21	L661A		Washer, 2 MM	
22	L661B		Nut, 2 MM	
23	K254		Screw, 3 × 6 MM	
24	B613		Bracket	
25	UT01	70191784	PC Board Assy FL MOTOR DRIVE	

NOTE:

Parts without Parts number in Parts List are not available as replacement parts.

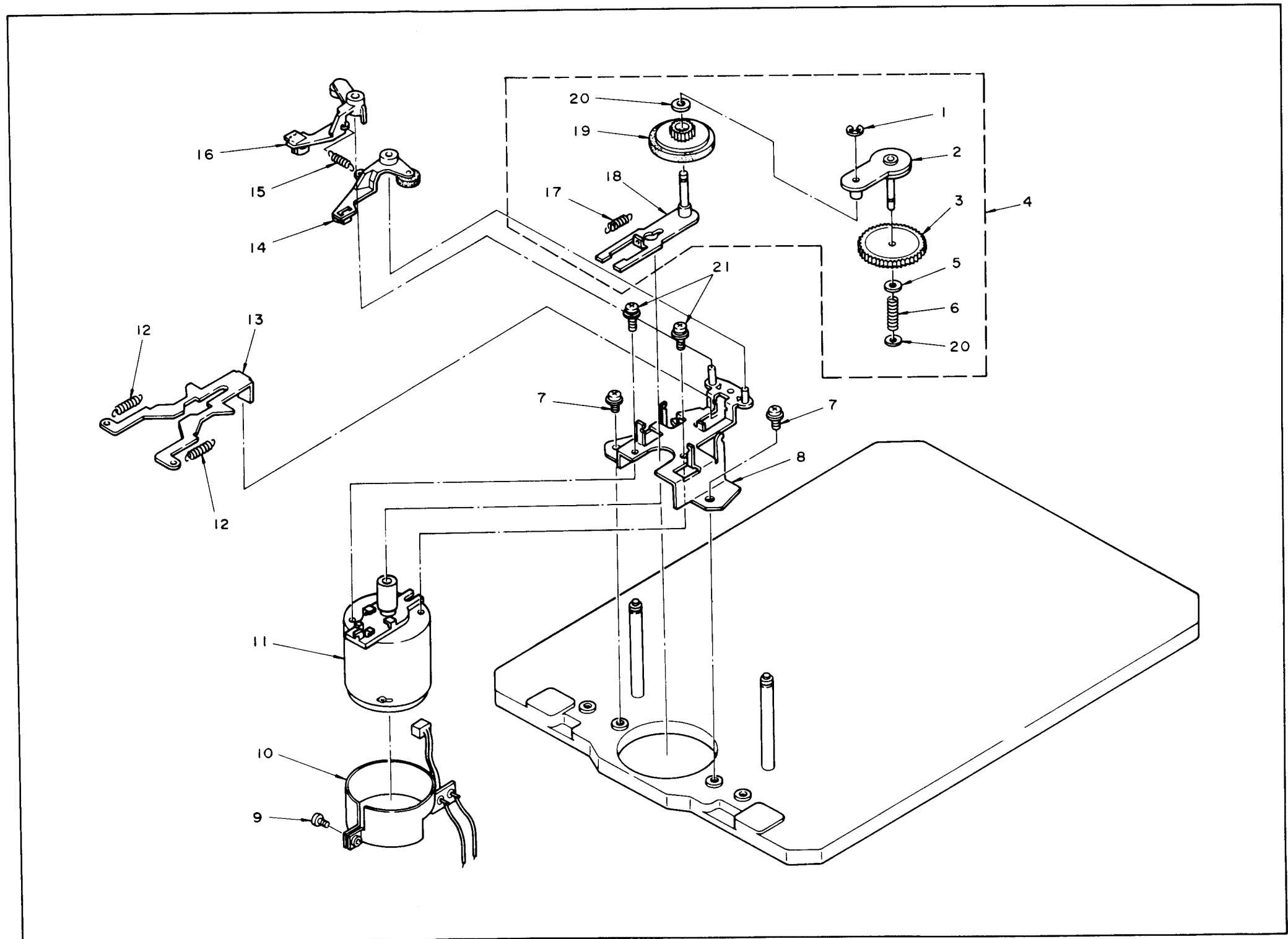


5. REEL MOTOR ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	K107		E Ring, 1.5 MM	
2	K106K		Idle Holder B Assy	
3	K106P		Idle Gear	
4	K106	70316057	Clutch Assy, Idler	
5	K106R	70396003	Polyslider, 2.1 × 4.0 × 0.25	
6	K106Q	70351457	Spring, Clutch Torque	
7	K101A		Screw, 3 × 8 MM	
8	K102		Chassis Assy, Reel Drive	
9	K111C		Screw, 2.6 × 6 MM, Tapping	
10	K111		Shield Assy, Reel Motor	
11	K110	70326451	Motor Assy, Reel	
12	K109		Spring, Slider	
13	K103		Slider	
14	K105	70326432	Brake Assy, Take Up	
15	K105E	70351460	Spring, Brake	
16	K104	70326431	Brake Assy, Supply	
17	K108	70351458	Spring, Idler	
18	K106A		Idle Holder Assy	
19	K106D		Idler Wheel Gear Assy	
20	K106G		Washer, Thrust	
21	K110E		Screw, 2.6 × 4 MM	

NOTE:

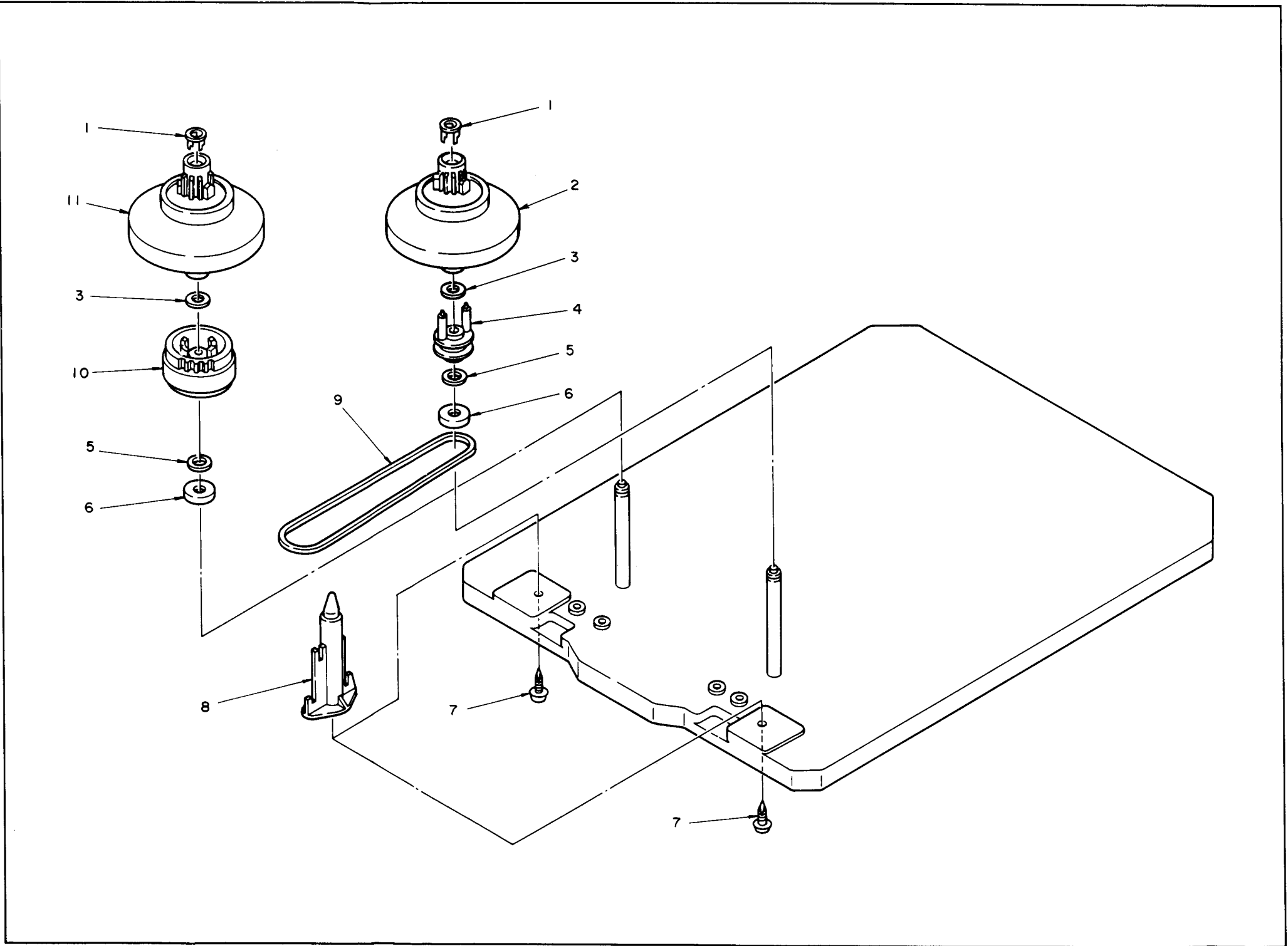
Parts without Parts number in Parts List are not available as replacement parts.



6. REEL CHASSIS ASSEMBLY

Key Nº.	Location No.	Part No.	Description	Remark
1	K173	70368001	Stopper, Reel Table	
2	K171	70327041	Reel Table Assy. Take Up	
3	K174		Washer, Polyethylene, 4.1 × 6.5 × 0.5 MM	
4	K172		Pulley, Reel Table	
5	K175,K154	70394048	Washer, 4 × 9 × 0.2	
6	K170,K150	70394081	Spacer, Reel Table	
7	K267		Screw, 3 × 10 MM, Tapping	
8	K266		Guide Post, Cassette	
9	K268	70342041	Belt, Counter	
10	K157		Wheel	
11	K151	70327040	Reel Table Assy. Supply	

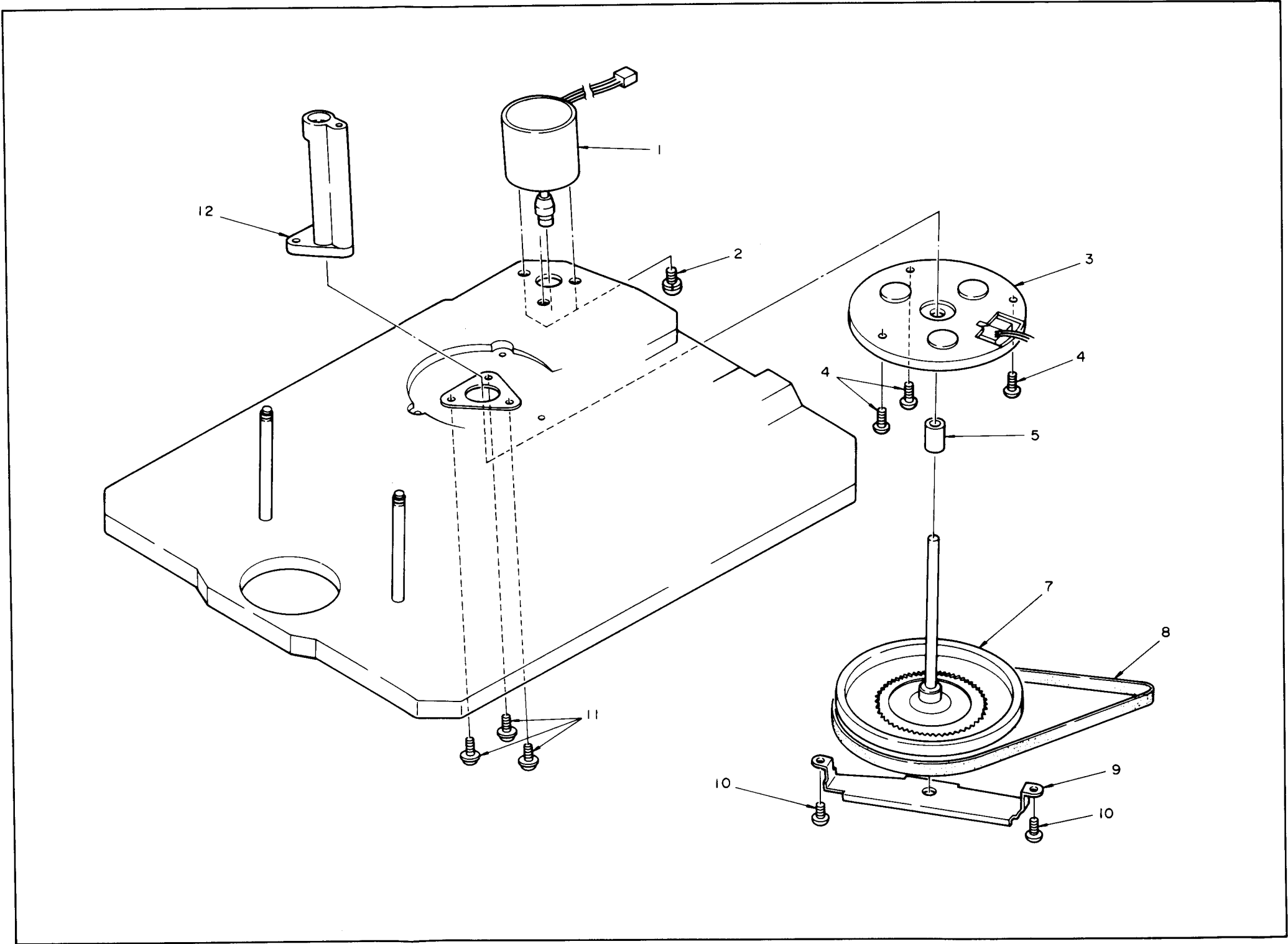
NOTE:
Parts without Parts number in Parts List are not available as replacement parts.



7. CAPSTAN MOTOR ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	B309	70125101	Motor Ass'y, DC, Capstan	
2	B309A		Screw, 2.6 × 4 MM	
3	L551	70321539	Coil Assy, Capstan FG	
4	B301A		Screw, 3 × 0.5 × 6 MM	
5	B304D		Spacer, Capstan	
7	B304	70335030	Flywheel Assy	
8	B307	70342082	Belt, Flat, Capstan	
9	B302		Bracket Assy, Thrust Bearing	
10	B302A		Screw, 3 × 8 MM	
11	G270C		Screw, 3 × 6 MM	
12	G270		Sleeve, Capstan	

NOTE:
Parts without Parts number in Parts List are not available as replacement parts.

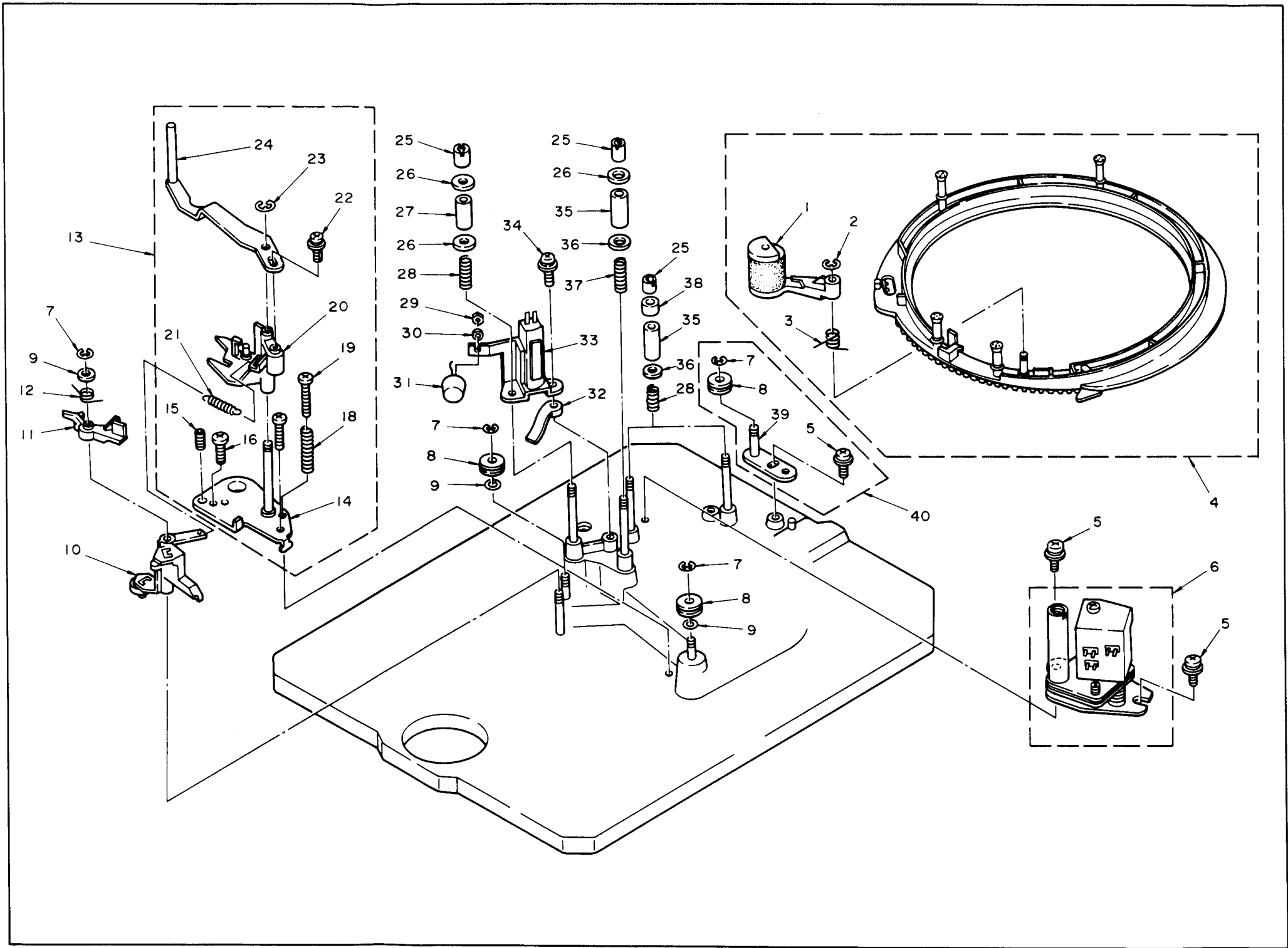


8. MAIN BASE ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	B404	70332023	Lever Assy, Pinch Roller	
2	B408	23002200	E Washer	
3	B403	70351263	Spring, Pinch Roller	
4	B401	70312071	Loading Disk Assy	
5	G202A		Screw, 3 × 8 MM	
6	G202	70321502	Guide Assy, Exit	
7	G275E, B105D	70394075	E Ring, 2.3 MM	
8	G276		Roller, Disk Guide	
9	B276B		Polyslider, 3.1 × 5.4 × 0.5 MM	
10	B105		Tension Sub Arm Assy	
11	B107		Lever, Arm Shift	
12	B108	70351467	Spring, Arm Shift Lever	
13	B101		Tension Servo Assy	
14	B104		Tension Bracket Assy	
15	B104C		Screw, 3 × 6 MM	
16	B101E		Screw, 3 × 0.5 × 5 MM	
17	B101A		Screw, 3 × 0.5 × 10 MM	
18	B101B		Spring, Adjust	
19	B101C		Screw, 3 × 0.5 × 20 MM	
20	B103		Tension Lever	
21	B106	70351316	Spring, Tension	
22	B102C		Screw, 3 × 10 MM, Tapping	
23	B103A		E Ring, 3 MM	
24	B102	70321447	Tension Arm Assy	
25	G259		Nut	
26	G256		Flange, First Guide	
27	G251		Guide Pole, First	
28	G260		Spring, Tape Exit Guide	
29	L662A		Nut, 2 MM	
30	L662B		Washer, 2 MM	
31	L662	70212003	Coil, Sensing, 0.18 MHz	
32	H032B		Lead Holder	
33	H032	70183011	Head Assy, Full Erase	
34	H032A		Screw, 3 × 12 MM	
35	G261		Guide Pole, Entrance	
36	G263		Flange, Exit Guide, Lower	
37	G253		Spring, Second Guide	
38	G262		Flange, Exit Guide	
39	G275A		Bracket, Roller Bracket	
40	G275		Roller Assy, Disk Guide	

NOTE:

Parts without Parts number in Parts List are not available as replacement parts.

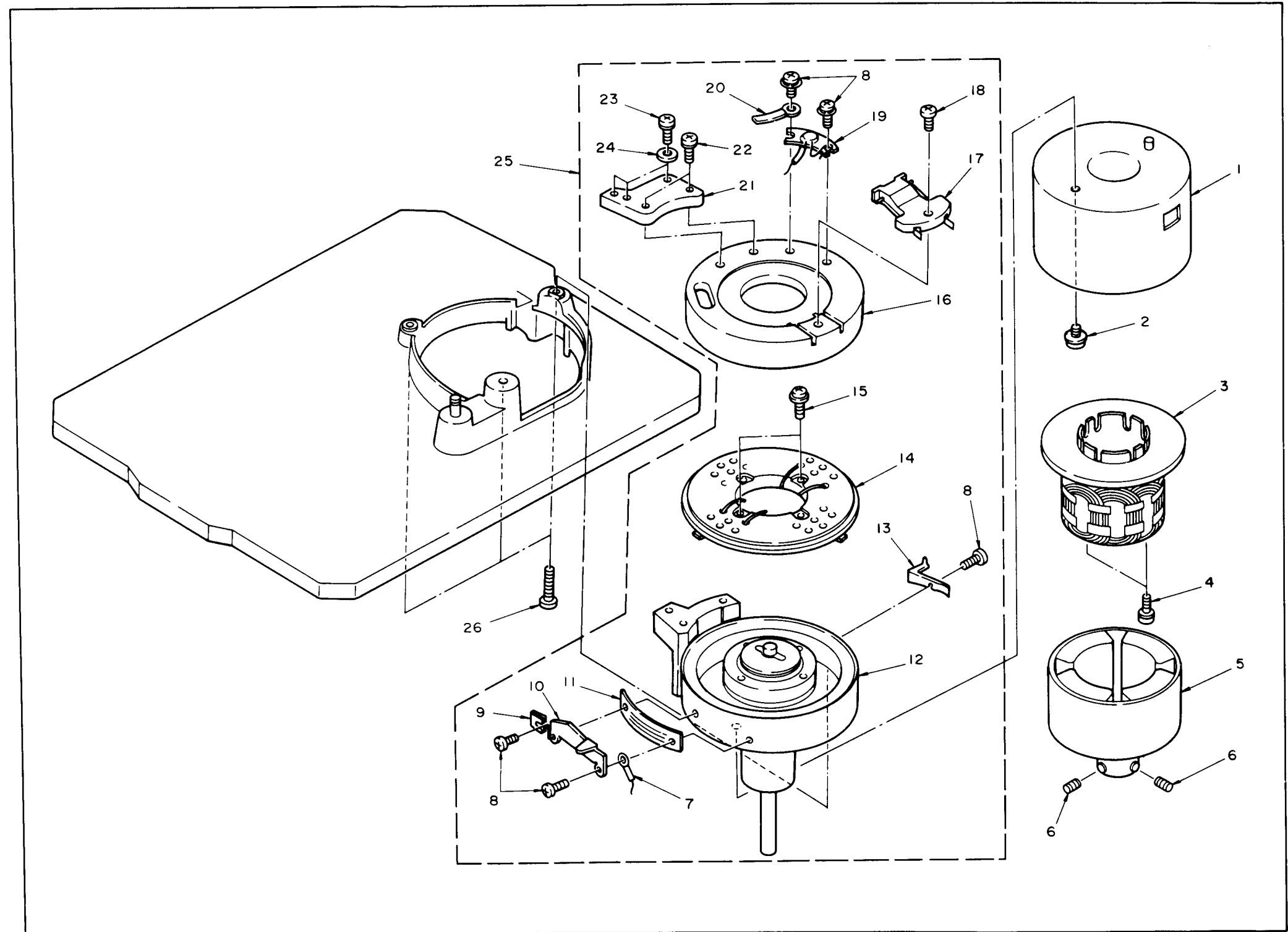


9. CYLINDER ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	G153		Shield, Case Assy	
2	G153A		Screw, 3 × 6 MM	
3	G152	70125077	Staytor	
4	G152A		Screw, 2 × 5 MM	
5	G151	70125076	Rotor	
6	G151A		Screw, 4 × 6 MM	
7	W114		Lug, Dew Sensor	
8	G137C		Screw, 3 × 0.5 × 6 MM	
9	G137B		Bracket, Dew Sensor	
10	G137		Tape Holder B	
11	RL91	70420007	Dew Sensor	
12	G022		Lower Scanner W/Connect Bracket	
13	G136		Tape Holder, A	
14	G120	70321542	Video Head Assy	
15	G120A		Screw, 3 × 8 MM, W/Washers	
16	G131	70321492	Upper Cylinder	
17	G132	70321232	Tape Holder Assy	
18	G132A		Screw, 3 × 8 MM	
19	RL92	70213012	Dew Heater	
20	RL92C		Lead Holder	
21	G133		Bracket	
22	G133A		Screw, 4 × 8 MM	
23	G133B		Screw, 3 × 0.5 × 10 MM	
24	G133C		Washer, 3 MM	
25	G011	70311115	Cylinder Assy	
26	G001A		Screw, 3 × 10 MM	

NOTE:

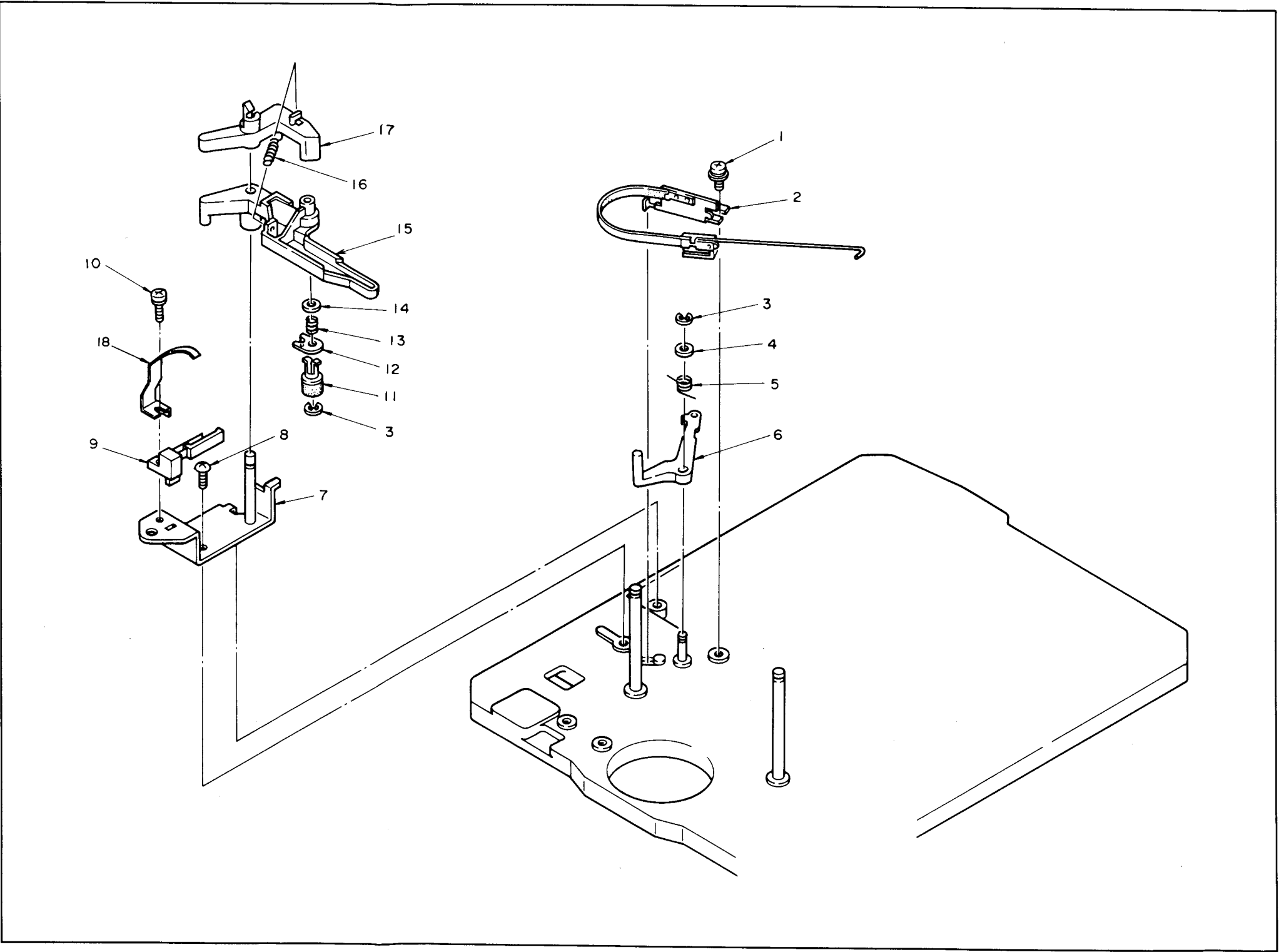
Parts without Parts number in Parts List are not available as replacement parts.



10. MAIN CHASSIS ASSEMBLY (LEFT SIDE)

Key No.	Location No.	Part No.	Description	Remark
1	B110J		Screw, 3 × 8 MM	
2	B110	70321514	Band Brake Assy	
3	K264	70394075	E Ring, 2.3 MM	
4	K263		Washer	
5	K262	70351415	Spring, Soft Brake	
6	K261		Lever, Soft Brake	
7	K202		Detect Bracket, Assy	
8	K201A		Screw, 3 × 8 MM	
9	S654	70145168	Switch, Leaf	
10	S654A		Screw, 2.6 × 6 MM	
11	K204		Roller Clutch Assy	
12	K205		Clutch Arm	
13	K206		Spring, Roller Clutch	
14	K206A		Washer, Polyethylene, 4.1 × 6.5 × 0.5 MM	
15	K203		Detect Arm B Assy	
16	K208		Spring, Cassette Detector	
17	K207		Lever, Unloading End Detector	
18	K210		Spring, Earth	

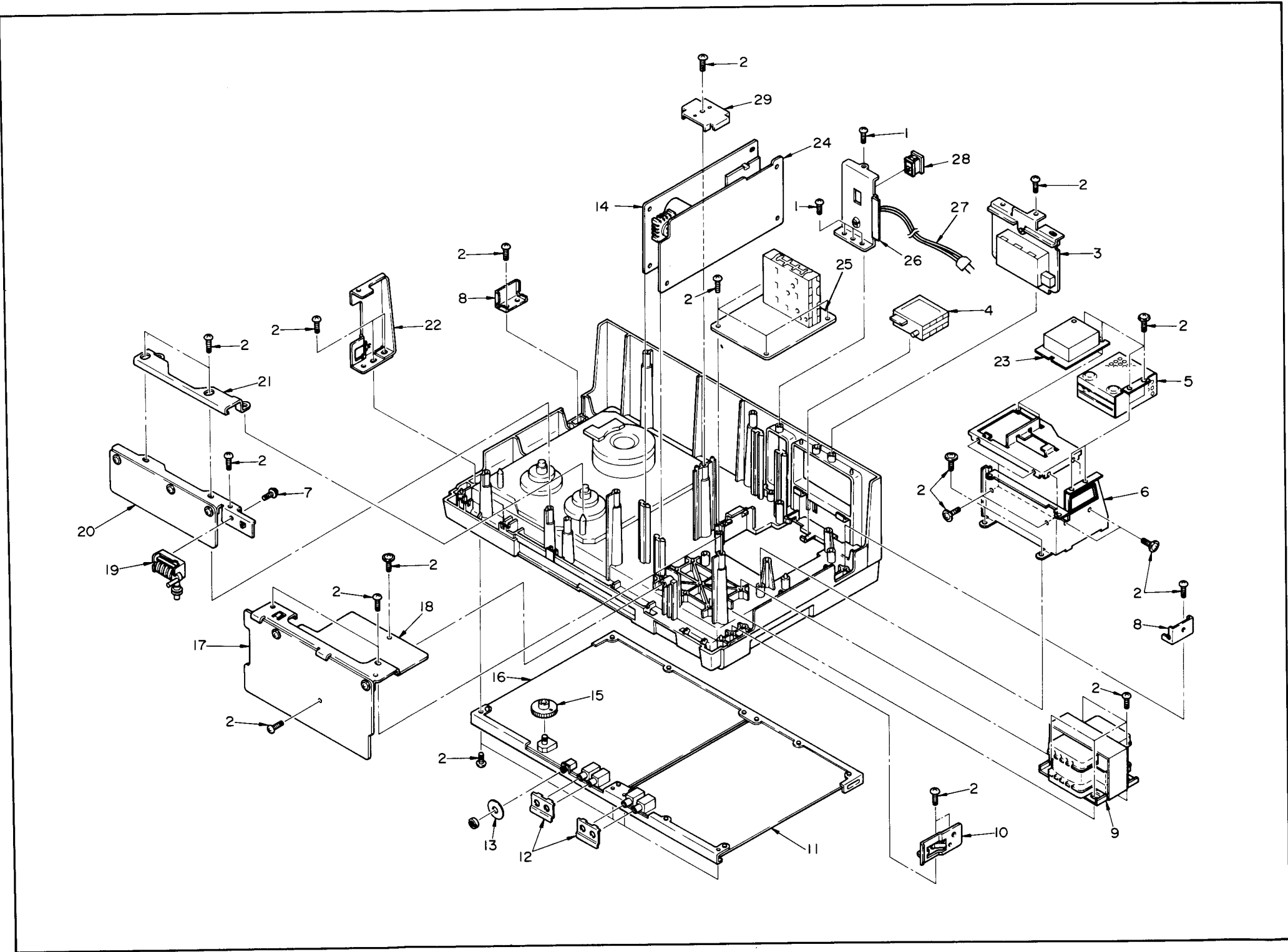
NOTE:
Parts without Parts number in Parts List are not available as replacement parts.



11. CHASSIS ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	B606A		Screw, 4 × 10 MM Tapping	
2	H003C		Screw, 4 × 12 MM Tapping	
3	H003	70142043	Antenna Terminal Board	
4	H004	70123047	RF Unit, MD5536T	
5	U901	70191806	DC-DC Converter	
6	QV01		Bracket	
7	QV01C		Screw, 3 × 6 MM	
8	B603		Bracket, Top Cover	
9	T802	70213067	Trans. Power	
10	B605		Bracket, Front Panel	
11	U201	70191779	PC Board Assy, Video	
12	V371	70867019	Cover, Jack	
13	V373	70810055	Cover, Remote Control Jack	
14	U301	70191780	PC Board Assy, Video 2	
15	V361	70862046	Knob, Tracking	
16	U501	70191781	PC Board Assy, Servo Logic Audio	
17	UX01	70191785	PC Board Assy, Timer Control	
18	UX61	70191810	PC Board Assy, Timer Selector	
19	B607	70141020	Counter	
20	UL01	70191783	PC Board Assy, Logic Control	
21	B609C		Bracket Cassette Guide	
22	B604		Bracket, Front Panel	
23	U961	70191782	PC Board Assy, Servo Clock	
24	U801	70191796	PC Board Assy, Power	
25	U001	70191809	PC Board Assy, PIF	
26	B606		Bracket, Power in Holder	
27	P801	70168060	Power Cord	
28	S801	70145192	Switch	
29	B608		Bracket	

NOTE:
Parts without Parts number in Parts List are not available as replacement parts.

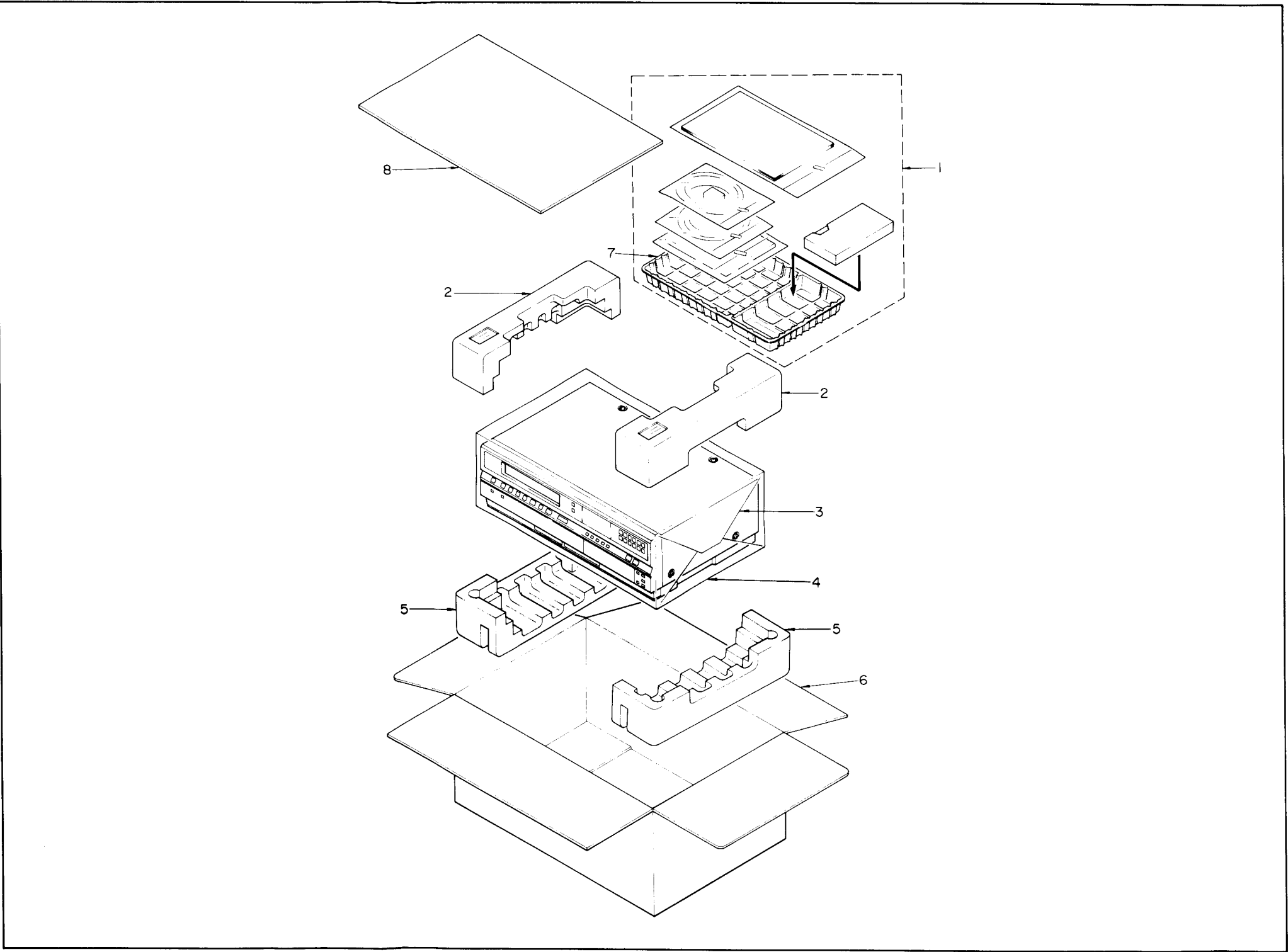


12. PACKING ASSEMBLY

Key No.	Location No.	Part No.	Description	Remark
1	Y101	70941251	Owner,s Manual (E, G, F,)	
	Y101A	70941252	Owner,s Manual (S, I, D,)	
	Y103	70942173	Quick Referance (ENG)	
	Y103A	70942174	Quick Referance (GER)	
	Y103B	70942175	Quick Referance (FRE)	
	Y103C	70942176	Quick Referance (SWE)	
	Y103D	70942177	Quick Referance (ITA)	
	Y103E	70942178	Quick Referance (DVT)	
	Y103F	70942195	Quick Referance (BLUE)	
	Y103G	70942194	Quick Referance (RED)	
2	Y104	70168035	PAL/SECAM Type Cable	
	A702	70921090	Packing Top	
3	A705		Sheet	
4	A704		Polyethylene Bag	
5	A703	70921091	Packing Bottom	
6	A701	70913162	Carton Box	
7	A709		Tray	
8	A712		Sheet	

NOTE:

Parts without Parts number in Parts List are not available as replacement parts.



ELECTRICAL PARTS LIST

ABBREVIATIONS: Capacitors CD: Ceramic Disk, PF: Plastic Film, EL: Electrolytic.
Resistors CF: Carbon Film, CC: Carbon Composition, MF: Metal Film,
OMF: Oxide Metal Film, VR: Variable Resistors.
(All CD and PF capacitors are $\pm 5\%$, 50V and all resistor, $\pm 5\%$, 1/8W unless otherwise).

LOCATION NUMBER	PART NUMBER	DESCRIPTION
PIF BOARD ASSY U001, 70191809		
< CAPACITORS >		
C001,C002, C003,C004 C007,C013 C021,C026 }	24232103	CD, 0.01 μ F, +80%, -20%
C005	24232102	CD, 0.001 μ F, +80%, -20%
C006	24636478	EL, 0.47 μ F, 50V
C008	24636479	EL, 4.7 μ F, 50V
C010	24633101	EL, 100 μ F, 16V
C011,C012	24636339	EL, 3.3 μ F, 50V
C014	24633470	EL, 47 μ F, 16V
C015,C016	24436020	CD, 2pF, $\pm 0.25\%$
C017	24436110	CD, 11pF
C018	24633471	EL, 470 μ F, 16V
C019,C020	24436470	CD, 47pF
C022	24602682	PF, 0.0068 μ F, $\pm 10\%$
C023	24636100	EL, 10 μ F, 50V
C024	24340360	CD, 36pF
< RESISTORS >		
R001	24360101	CF, 100 ohm
R002	24360301	CF, 300 ohm
R003	24360562	CF, 5.6K ohm
R004	24360471	CF, 470 ohm
R012	24360152	CF, 1.5K ohm
R006	24360270	CF, 27 ohm
R007	24360821	CF, 820K ohm
R008	24360392	CF, 3.9K ohm
R009	24360683	CF, 68K ohm
R010	24360221	CF, 220 ohm
R011,R042	24360824	CF, 820K ohm
R013	24360511	CF, 510 ohm
R014,R019 R017, R005 }	24360102	CF, 1K ohm
R016	24360681	CF, 680 ohm
R018	24941821	CC, 820 ohm, 1/4W
R020	24360153	CF, 15K ohm
R021	24360242	CF, 2.4ohm
R022	24360182	CF, 1.8k ohm
R023,R024	24360103	CF, 10K ohm
R025	24360473	CF, 47K ohm
R026	24360105	CF, 1M ohm
R027	24360564	CF, 560K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R028	24360224	CF, 220K ohm
R051	24061149	VR, 330K ohm, 0.15W
R052	24061138	VR, 4.7K ohm, 0.15W
< SEMICONDUCTOR >		
IC002	B0354710	IC, TA7607AP
IC006	B0325290	IC, TA7337P
Q001	A6308871	NPN, Transistor, 2SC388ATM
Q003	A6048371	2SK30ATM-GR, (FET)
Q005	A6534045	PNP, Transistor, 2SA1015-Y
Q007, Q008	A6317547	NPN, Transistor, 2SC1815NEW, Y, FA
D001, D002	A7246711	Diode, 1S1555V
< COILS >		
L001	23262951	Coil, TRF1019 R choke
L002	23261985	Coil, TRF9221
L003	23262856	Coil, TRF1452
L004	23262853	Coil, TRF1454
L005	23262852	Coil, TRF1455
L006	23283150	Coil, TRF4150JG, Peaking
L007	23283360	Coil, TRF4360JG, Peaking
L008	23283120	Coil, TRF4120JG, Peaking
L009	70256001	LCA01
L010	23261052	AZ9246F
< MISCELLANEOUS >		
Z001	A5611110	PSF, F1034
Z002	23107972	Ceramic Video Trap TPS5.5MB
Z003	23107947	SFE5.5MBF
P001	23164658	Plug 9P, BRN
P002	23164668	Plug 4P, BRN
P003	23164671	Plug 3P, BRN
H001	70121019	TUNER, TN-EG5II
VIDEO BOARD ASSY U201 70191779		
< CAPACITORS >		
C202	24436270	CD, 27pF
C203,C210, C220,C237, C243,C245, C246,C249, C261,C266, C269 }	24232103	CD, 0.01 μ F, +80%, -20%

LOCATION NUMBER	PART NUMBER	DESCRIPTION
C273,C276, C279,C281, C286,C291, C294,C299, C300,C310, C317,C324, C341,C342, C343	24232103	CD, 0.01 μ F, +80%, -20%
C204,C207, C225,C231, C232,C233, C248,C260, C263,C264, C265,C274, C275,C289, C305,C315, C332,C337,	24232223	CD, 0.022 μ F, +80%, -20%
C205,C213, C217,C333, C334,C339,	24633220	EL, 22 μ F, 16V
C206,C224, C226,C230, C262,C290, C301,C314, C316,C329, C330,C331, C335,C336,	24633470	EL, 47 μ F, 16V
C208	24632101	EL, 100 μ F, 10V
C209	24633330	EL, 33 μ F, 16V
C211,C295, C302,C307, C318,C319,	24636010	EL, 1 μ F, 50V
C212	24867223	PF, 0.022 μ F
C214,C283	24212471	CD, 470pF, \pm 10%
C215	24867104	PF, 0.1 μ F
C216	24436821	CD, 820pF
C218	24436150	CD, 15pF
C222	24359181	CD, 180pF
C223	24436181	CD, 180pF
C227	24436241	CD, 240pF
C228,C240	24436560	CD, 56pF
C229,C270, C272	24436101	CD, 100pF
C234,C238, C267	24867473	PF, 0.047 μ F
C235,C236, C239,C292, C293	24635479	EL, 4.7 μ F, 35V

LOCATION NUMBER	PART NUMBER	DESCRIPTION
C241	24436471	CD, 470pF
C242	24633100	EL, 10 μ F, 16V
C247	24636229	EL, 2.2 μ F, 50V
C268,C311	24436121	CD, 120pF
C271,C298	24436331	CD, 330pF
C278,C340	24436151	CD, 150pF
C282,C326	24358221	CD, 220pF
C284,C285	24867152	PF, 0.0015 μ F
C287,C288	24436271	CD, 270pF
C296	24636478	EL, 0.47 μ F, 50V
C297	24436300	CD, 30pF
C303	24436221	CD, 220pF
C304	24867472	PF, 0.0047 μ F
C306	24212472	CD, 0.0047 μ F
C308,C325	24212102	CD, 0.001 μ F, \pm 10%
C309,C313	24436270	CD, 27pF
C320,C321	24867123	PF, 0.012 μ F
C312	24436330	CD, 33pF
C322	24353160	CD, 16pF
C323	24353470	CD, 47pF
C327	24632102	EL, 1000 μ F, 10V
< RESISTORS >		
R202,R264	24380223	CF, 22K ohm
R203	24380392	CF, 3.9K ohm
R204,R329, R376,R422	24380152	CF, 1.5K ohm
R205,R208	24380751	CF, 750 ohm
R206,R331, R364,R394	24380103	CF, 10K ohm
R207,R238, R324	24380332	CF, 3.3K ohm
R209,R224, R371	24380102	CF, 1K ohm
R210,R212, R361	24360302	CF, 3K ohm
R211	24000952	Thermistor, 3K ohm
R213	24360912	CF, 9.1K ohm
R214,R317, R396	24360182	CF, 1.8K ohm
R215,R217	24360681	CF, 680 ohm
R216,R286, R375	24360221	CF, 220 ohm
R218,R341, R362	24360101	CF, 100 ohm
R219,R287, R368,R384, R385,R391,	24360333	CF, 33K ohm
R220,R280,	24360473	CF, 47 kohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R281,R283, R285,R299, R301,R303, R304,420 }	24360473	CF, 47K ohm
R221,R387	24380473	CF, 47K ohm
R222	24380561	CF, 560 ohm
R223,R225, R226,R248 }	24360202	CF, 2K ohm
R227,R243, R365 }	24360622	CF, 6.2K ohm
R228	24398112	CF, 1.1K ohm $\pm 2\%$
R229	24398162	CF, 1.6K ohm $\pm 2\%$
R230	24378162	CF, 1.6K ohm $\pm 2\%$
R231	24378112	CF, 1.1K ohm $\pm 2\%$
R232	24378152	CF, 1.5K ohm $\pm 2\%$
R233,R374	24360271	CF, 270 ohm
R234,R240	24360151	CF, 150 ohm
R235	24360100	CF, 10 ohm
R236	24360123	CF, 12K ohm
R237	24360122	CF, 1.2K ohm
R239,R245, R249,R274, R276,R277, R278,R284, R302,R305, R308,R345, R382,R400, R405,R413 }	24360102	CF, 1K ohm
R241	24360163	CF, 16K ohm
R242	24360133	CF, 13K ohm
R244,R339, R370 }	24360682	CF, 6.8K ohm
R246,R344, R399 }	24360152	CF, 1.5K ohm
R247,R342, R409 }	24360332	CF, 3.3K ohm
R251,R254, R353 }	24061239	VR, 1K ohm, 0.15W
R252	24061246	VR, 15K ohm, 0.15W
R253,R255, R352 }	24061241	VR, 2.2K ohm, 0.15W
R256,R259	24061137	VR, 3.3K ohm, 0.15W
R257	24061247	VR, 22K ohm, 0.15W
R258	24061245	VR, 10K ohm, 0.15W
R260,R288, R310,R333, R349 }	24360472	CF, 4.7K ohm
R261	24380911	CF, 910 ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R262,R383, R403 }	24360222	CF, 2.2K ohm
R263,R311, R313,R314, R315,R316, R377 }	24360391	CF, 390 ohm
R265,R289 R290,R292	24360223	CF, 22K ohm
R293,R295 R309,R332 R369		
R266,R327, R397 }	24360331	CF, 330 ohm
R267	24360161	CF, 160 ohm
R268,R291, R323,R326, R337,R338, R367,R379, R406,R410 }	24360103	CF, 10K ohm
R269	24378332	CF, 3.3K ohm $\pm 2\%$
R270	24378182	CF, 1.8K ohm $\pm 2\%$
R271	24378472	CF, 4.7K ohm $\pm 2\%$
R272,R296, R392,R415 }	24360562	CF, 5.6K ohm
R273,R373, R404 }	24360821	CF, 820 ohm
R275	24360112	CF, 1.1K ohm
R279,R318	24360561	CF, 560 ohm
R282,R380, R389 }	24360471	CF, 470 ohm
R294,R398	24360224	CF, 220K ohm
R297	24360273	CF, 27K ohm
R298	24360104	CF, 100K ohm
R300,R325, R407,R411 }	24360563	CF, 56K ohm
R306	24360303	CF, 30K ohm
R307	24380183	CF, 18K ohm
R312	24380222	CF, 2.2K ohm
R319	24380511	CF, 510 ohm
R320	24360201	CF, 200 ohm
R321,R360, R414 }	24360682	CF, 6.8K ohm
R322	24360301	CF, 300 ohm
R330	24380122	CF, 1.2K ohm
R334,R416	24360751	CF, 750 ohm
R335	24380302	CF, 3K ohm
R336	24360272	CF, 2.7K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R340,R346	24360153	CF, 15K ohm
R343,R366, } R395	24360512	CF, 5.1K ohm
R347	24360241	CF, 240 ohm
R348	24360752	CF, 7.5K ohm
R354	24061255	VR, 470K ohm, 0.15W
R363	24360203	CF, 20K ohm
R372	24380472	CF, 4.7K ohm
R378	24380153	CF, 15K ohm
R381	24360560	CF, 56 ohm
R386	24380273	CF, 27K ohm
R388	24360620	CF, 62 ohm
R390	24360243	CF, 24K ohm
R393	24380393	CF, 39K ohm
R401	24360621	CF, 620 ohm
R402	24531330	OMF, 33 ohm, 1/2W
R408	24360822	CF, 8.2K ohm
R412	24380681	CF, 680 ohm
R417	24360820	CF, 82 ohm
R418	24360183	CF, 18K ohm
R419	24360681	CF, 680 ohm
R421	24380123	CF, 12k ohm
< SEMICONDUCTORS >		
IC201	B0356320	TA7637P
IC202	70135005	TVH102
IC203	70119037	CX-136A
IC204,IC205	70119167	CX-150B
IC206,IC208	B0325390	TA7347P
IC207	70119176	MB-14300
IC209	70119168	CX-832
Q210,Q216, } Q218,Q233, } Q234,Q235, } Q236	A6534045	PNP, Transistor, 2SA1015-Y, FA
Q211,Q212, } Q213,Q215, } Q217,Q219, } Q220,Q221, } Q222,Q223, } Q224,Q225, } Q226,Q227, } Q228,Q229, } Q230,Q231, } Q232,Q237, } Q238,Q239, } Q240,Q242, } Q243,Q244, }	A6317547	NPN, Transistor, 2SC1815-Y, FA
Q214	A6325540	NPN, Transistor, 2SC2236-Y

LOCATION NUMBER	PART NUMBER	DESCRIPTION
Q241	A6319302	NPN, Transistor, 2SC1959-Y, FA
Q210,Q216, } Q218,Q233, } Q234,Q235, } Q236	A6534021	PNP, Transistor, 2SA1015-O, FA
Q211,Q212, } Q213,Q215, } Q217,Q219, } Q220,Q221, } Q222,Q223, } Q224,Q225, } Q226,Q227, } Q228,Q229, } Q230,Q231, } Q232,Q237, } Q238,Q239, } Q240,Q242, } Q243,Q244, }	A6317526	NPN, Transistor, 2SC1815-Y, FA
Q214	A6841900	NPN, Transistor, 2SD549
Q241	A6319283	NPN, Transistor, 2SC1959NEW-O, FA
D201,D202, } D205,D206, } D207,D209, } D210,D214, } D216,D217 }	A7246711	Diode, 1S1555 (TV)
D203,D204, } D215 }	A7110017	Diode, 05Z5.6Y, Zener
D211	A7110262	Diode 05Z9.1Y, Zener
D203,D204, } D215 }	A7110018	Diode, 05Z5.6Z, Zener
D211	A7110263	Diode, 05Z9.1Z, Zener
< COIL & TRANSFORMER >		
L201	23283221	Coil, TRF4221JG, Peaking
L202	23283180	Coil, TRF4180, Peaking
L203	23283820	Coil, TRF4820JG, Peaking
L204	23283151	Coil, TRF4151JG, Peaking
L205,L206	23283121	Coil, TRF4121, Peaking
L207	23283470	Coil, TRF4470JG, Peaking
L208,L209	23283680	Coil, TRF4680JG, Peaking
L210	23283829	Coil, TRF4829JG, Peaking
L211	23283472	Coil, TRF4472JG, Peaking
L212,L214, } L215 }	23283471	Coil, TRF4471, Peaking
L213	23283829	Coil, TRF4829JG, Peaking
L216	23283270	Coil, TRF4270JG, Peaking
L218	23283101	Coil, TRF4101JG, Peaking

LOCATION NUMBER	PART NUMBER	DESCRIPTION
L251,L252	70252034	Trans, TRV034
T251	70252039	Trans, TRV039
T252	70252036	TRV036, OSC
T253	70252035	TRV035, OSC
T254	70252037	Trans, TRV037
< MISCELLANEOUS >		
X201	23153979	Crystal, 4.43 MHz
X202	23153980	Crystal, 4.43 MHz APC
X203	70138013	Delay Line, 2H PDL-1243F
X204	23250966	Delay Line, 1H
Z201	70132032	LC Filter, LC802A
Z202	70132037	LC Filter
Z203	70132030	LC Filter, LC730D
Z204	70132031	LC Filter, LC854
Z205	70153022	Ceramic Filter, 5.12 MHz
P201,P206	23164671	Plug 3P BRN
P202,P207, P210	23164668	Plug 4P BRN
P203,P208	23164669	Plug 4P BLK
P204	23164672	Plug 3P BLK
P205	23164673	Plug 3P WHT
P209	23164665	Plug 5P BRN
P211,P212	70163054	Jack/Phono Print K (SW)
VIDEO II U301 BOARD ASSY 70191780		
< CAPACITORS >		
C101,C111, C112,C127, C132,C134, C160	24633470	EL, 47 μ F, 16V
C103,C104, C106,C108, C115,C116, C117,C119, C120,C121, C137,C142,	24232103	CD, 0.01 μ F, +80%, -20%, 50V
C105,C107, C123,C136	24636010	EL, 1 μ F, 50V
C109,C129	24212102	CD, 0.001 μ F, \pm 10%
C110,C113, C128,C133, C166	24232223	CD, 0.022 μ F, +80%, -20%, 50V
C114	24436331	CD, 330pF
C141	24436391	CD, 390pF
C118	24867562	PF, 0.0056 μ F
C122	24436681	CD, 680pF
C124	24436620	CD, 62pF
C125,C140, C144,C146,	24632101	EL, 100 μ F, 10V

LOCATION NUMBER	PART NUMBER	DESCRIPTION
C161	24632101	EL, 100 μ F, 10V
C130	24636478	EL, 0.47 μ F, 50V
C131	24867223	PF, 0.022 μ F
C135,	24436821	CD, 820pF
C138,C167	24436330	CD, 33pF
C139	24867104	PF, 0.1 μ F
C143	24436201	CD, 200pF
C145	24353111	CD, 110 μ F
C147,C148	24436101	CD, 100pF
C149	24436560	CD, 56pF
C162	24436751	CD, 750pF
C163	24436390	CD, 39pF
C164	24436510	CD, 51pF
C165	24436201	CD, 200pF
C168	24212222	CD, 0.0022 μ F, \pm 10%
< RESISTORS >		
R100,R192, R193	24360222	CF, 2.2K ohm
R101,R128	24380103	CF, 10K ohm
R102	24380750	CF, 75 ohm
R103,R119	24380122	CF, 1.2K ohm
R104	24380472	CF, 4.7K ohm
R105,R122	24360103	CF, 10K ohm
R106,R107	24380433	CF, 43K ohm
R108,R110	24360104	CF, 100K ohm
R109,R111	24360224	CF, 220K ohm
R112,R118	24380333	CF, 33K ohm
R113,R166, R188	24380182	CF, 1.8K ohm
R114,R120, R121,R142, R144,R179	24380102	CF, 1K ohm
R201		
R115	24962101	OMF, 100 ohm, 1/2W
R116,R147	24380242	CF, 2.4K ohm
R117	24360511	CF, 510 ohm
R164,R174, R185	24360102	CF, 1K ohm
R123	24360391	CF, 390 ohm
R124,R194	24380391	CF, 390 ohm
R125	24380821	CF, 820 ohm
R126	24380681	CF, 680 ohm
R127,R137	24380331	CF, 330 ohm
R129	24360472	CF, 4.7K ohm
R130	24380223	CF, 22K ohm
R131	24360473	CF, 47K ohm
R132,R184, R195,R197	24360223	CF, 22K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R133,R180	24360101	CF, 100 ohm
R134	24360302	CF, 3K ohm
R135,R199	24380202	CF, 2K ohm
R136,R200	24380271	CF, 270 ohm
R138,R175	24380561	CF, 560 ohm
R139	24380122	CF, 1.2K ohm
R140	24380203	CF, 20K ohm
R141	24380361	CF, 360 ohm
R143	24398243	CF, 24K ohm, $\pm 2\%$
R145	24380101	CF, 100 ohm
R146	24360105	CF, 1M ohm
R148	24360511	CF, 510 ohm
R149	24360622	CF, 6.2K ohm
R150,R151	24061321	VR, 3.3K ohm, 0.15W
R152		
R160	24360393	CF, 39K ohm
R161	24380132	CF, 1.3K ohm
R162	24360221	CF, 220 ohm
R163	24360433	CF, 43K ohm (FA-2)
	or 24360104	CF, 100K ohm (FA-1)
R165	24360912	CF, 9.1K ohm
R167	24398391	CF, 390 ohm, $\pm 2\%$
R168	24378202	CF, 2K ohm, $\pm 2\%$
R169	24360392	CF, 3.9K ohm
R170	24360332	CF, 3.3K ohm
R171	24360243	CF, 24K ohm
R172	24360822	CF, 8.2K ohm
R173,R181	24380222	CF, 2.2K ohm
R176,R177	24360561	CF, 560 ohm
R178,R196	24360821	CF, 820 ohm
R182,R189	24360152	CF, 1.5K ohm
R183,R187	24360202	CF, 2K ohm
R186	24360100	CF, 10 ohm
R190	24360271	CF, 270 ohm
R191	24360151	CF, 150 ohm
R198	24360361	CF, 360 ohm
< COILS & TRANSFORMER >		
L101	23283221	Coil, TRF4221JG, Peaking
L102, L105	23283102	Coil, TRF4102JG, Peaking
L111	23283209	Coil, TRF4209JG, Peaking
L106,	23283820	Coil, TRF4820JG, Peaking
L107	23283100	Coil, TRF4100JG, Peaking
L103,L104	23283829	Coil, TRF4829JG, Peaking
L109		
L110	23283240	Coil, TRF4240JG, Peaking
L112	23283330	Coil, TRF4330JG, Peaking
L113	23283560	Coil, TRF4560JG, Peaking
L114	23283151	Coil, TRF4151JG, Peaking

LOCATION NUMBER	PART NUMBER	DESCRIPTION
T101,T102	70253002	PRE-AMP
T103	70252033	TRV033
IC101	B0325300	IC, TA7339P
IC102	B0356720	IC, TA7672P
IC103	B0325420	IC, TA7350P
IC104	B0356301	IC, TA7636P, FA-1
	or B0356302	IC, TA7636P, FA-2
D101,D102	A7246711	Diode, 1S1555
D105,D106		
D107,D108		
D109,D110		
D111	A7110160	Diode, 05Z7.5-Y
D112		
D103	A7110076	Diode, 05Z6.2-Y, Zener
D104	A7110114	Diode, 05Z6.8-X, Zener
Q105,Q110,	A6534045	Transistor, 2SA1015-Y
Q112,Q114		
Q105,Q110,	A6534021	Transistor, 2SA1015-O
Q112,Q114		
Q106,Q107	A6317547	Transistor, 2SC1815NEW, Y
Q108,Q109		
Q111,Q113		
Q115	or A6317526	Transistor, 2SC1815NEW, O
P101,P105	23164662	Plug 6P BRN
P102,P108	23164671	Plug 3P BRN
P103	23164660	Plug 7P BRN
P104	23164673	Plug 3P WHT
P106	23164668	Plug 4P BRN
P107	23164666	Plug 5P BLK
P109	23164672	Plug 3P BRK
P110	23164665	Plug 5P BRN
Z101	70132037	Delay Line
Z102	70132023	LC-660A, Filter
X101	70138011	1H Delay Line PDL-643KV
SERVO LOGIC AUDIO BOARD ASSY U501 70191781		
< CAPACITORS >		
C501,C614,	24633101	EL, 100 μ F, 16V
C703		
C502,C506	24636478	EL, 0.47 μ F, 50V
C503	24212471	CD, 470pF, $\pm 10\%$
C504,C505	24692103	PF, 0.01 μ F
C634		
C508,C517	24232103	CD, 0.01 μ F, +80%, -20%
C525,C529		
C530,C532		
C534,C536		
C628,C629		

LOCATION NUMBER	PART NUMBER	DESCRIPTION
C507	24692473	PF, 0.047 μ F
C509,C510	24692272	PF, 2700pF
C511	24692393	PF, 0.039 μ F
C512,C524, C714,C709	24636010	EL, 1 μ F, 50V
C527,C601 C701,C704 C710,C720 C721	24633100	EL, 10 μ F, 16V
C516,C526 C531,C535 C619,C712	24633220	EL, 22 μ F, 16V
C518,C617, C620	24636229	EL, 2.2 μ F, 50V
C519,C727, C520	24633470	EL, 47 μ F, 16V
C522,C608	24232223	CD, 0.022 μ F, +80%, -20%
C523	24085023	EL, 10 μ F, 16V
C537	24212102	CD, 0.001 μ F, \pm 10%
C602,C621	24632220	EL, 22 μ F, 10V
C603,C627, C632	24632470	EL, 47 μ F, 10V
C604,C606	24867392	PF, 3900pF
C605,C607	71593223	PF, 0.022 μ F
C609,C711 C724,C716 C718	24635479	EL, 7 μ F, 35V
C611,C612, C705	24432101	CD, 100pF, \pm 10%
C615,C708	24632101	EL, 100 μ F, 10V
C702	24212152	CD, 1500pF, \pm 10%
C706	24692273	PF, 0.027 μ F
C713	24212562	CD, 5600pF, \pm 10%
C715	24212102	CD, 1000pF, \pm 10%
C717	24432560	CD, 56pF, \pm 10%
C719	24212821	CD, 820pF, \pm 10%
C722	24633221	EL, 220 μ F, 16V
C725	24212122	CD, 1200pF, \pm 10%
C726	24867682	PF, 6800pF
C728	24212472	CD, 4700pF, \pm 10%
C729	24214221	CD, 220pF, \pm 10%, 500V
C730	24867124	PF, 0.12 μ F
< RESISTORS >		
R501,R742	24360122	CF, 1.2K ohm
R502,R617	24360911	CF, 910 ohm
R503,RY18, RY19	24360432	CF, 4.3K ohm
R504,R530	24380102	CF, 1K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R536,R573 R697,R671 R737,RL21 RY07	24380102	CF, 1K ohm
R505,R506 R543,R547 R570,R589 R598,R615 R677,R696 R722,RL22 RY09,RY17 R743	24380103	CF, 10K ohm
R507,R518 R537,R539 R540,R541 R565,R566	24380104	CF, 100K ohm
R508	24380471	CF, 470 ohm
R509	24380624	CF, 620K ohm
R510,R588 R765	24380512	CF, 5.1K ohm
R511,R532	24380392	CF, 3.9K ohm
R512,R531 R644,R645 R713,R714 R736,RY35	24380472	CF, 4.7K ohm
R513,R520, R741	24380272	CF, 2.7K ohm
R514,R607 R608,RY31	24380223	CF, 22K ohm
R515	24378134	CF, 130K ohm, \pm 2%
R516	24378512	CF, 5.1K ohm, \pm 2%
R517,R616 R632	24360513	CF, 51K ohm
R519,R715	24380562	CF, 5.6K ohm
R521,R724	24360202	CF, 2K ohm
R522	24360752	CF, 7.5K ohm
R523,R585 R613,R627 R631,R642 R648,R649 R661,R673 R679,R681 R682,R683 R725,RY05 RY16	24360103	CF, 10K ohm
R525	24380912	CF, 9.1K ohm
R528,R590 R640,R641	24360472	CF, 4.7K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R663,R664	24360472	CF, 4.7K ohm
R665,R672		
R684,R685		
R686,R687		
R717,RY14	24380332	CF, 3.3K ohm
R529,R723		
R729		
R533	24380152	CF, 1.5K ohm
R535,R749	24380273	CF, 27K ohm
R542,R544	24380473	CF, 47K ohm
R584,R698		
R699		
R545	24380303	CF, 30K ohm
R602,R605	24360332	CF, 3.3K ohm
R719,RY04		
R548,R562	24380753	CF, 75K ohm
R549,RL23	24380204	CF, 200K ohm
R550	70421162	VR, 500K ohm, 1/5W
R551,R552	24061150	VR, 470K ohm, 0.15W
R553	24061149	VR, 330K ohm, 0.15W
R560,R670	24380153	CF, 15K ohm
R676,R731		
R763,RY32		
R561	24380164	CF, 160K ohm
R563	24380514	CF, 510K ohm
R564,R574	24380183	CF, 18K ohm
RY13		
R567,R620	24360183	CF, 18K ohm
R568	24380163	CF, 16K ohm
R569	24380913	CF, 91K ohm
R571	24378203	CF, 20K ohm, $\pm 2\%$
R572	24398203	CF, 20K ohm, $\pm 2\%$
R575	24398242	CF, 2.4K ohm, $\pm 2\%$
R576	24398222	CF, 2.2K ohm, $\pm 2\%$
R577	24360204	CF, 200K ohm
R578	24380122	CF, 1.2K ohm
R579	24380824	CF, 820K ohm
R580,R667	24360242	CF, 2.4K ohm
R668		
R581	24380123	CF, 12K ohm
R582	24380203	CF, 20K ohm
R583,R610	24360223	CF, 22K ohm
R586,R596	24380334	CF, 330K ohm
R738		
R587	24380622	CF, 6.2K ohm
R591,R624	24360104	CF, 100K ohm
RY20,RY21		
R593,R709	24360124	CF, 120K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R597	24380302	CF, 3K ohm
R599	24380682	CF, 6.8K ohm
R601,R604	24360153	CF, 15K ohm
R603,R606	24360682	CF, 6.8K ohm
R726,R727		
R609	24360474	CF, 470K ohm
R611,R718	24360473	CF, 47K ohm
R612,RY29	24360163	CF, 16K ohm
R614	24380333	CF, 33K ohm
R618	24360302	CF, 3K ohm
R619	24378683	CF, 68K ohm, $\pm 2\%$
R623,R735	24360102	CF, 1K ohm
R625,R669	24360203	CF, 20K ohm
R675		
R626	24360392	CF, 3.9K ohm
R628	24360101	CF, 100 ohm
R630,R633	24360161	CF, 160 ohm
R634,R762	24380101	CF, 100 ohm
RY28		
R636	24380222	CF, 2.2K ohm
R637	24360681	CF, 680 ohm
R651,R652	24061420	VR, 1K ohm, 0.15W
R701	24380100	CF, 10 ohm
R702,R703	24380104	CF, 100K ohm
R704,R705	24380562	CF, 5.6K ohm
R715		
R706	24380222	CF, 2.2K ohm
R707	24380243	CF, 24K ohm
R708,RY02	24380154	CF, 150K ohm
R710	24380182	CF, 1.8K ohm
R716	24360563	CF, 56K ohm
R720	24360243	CF, 24K ohm
R728,R730	24380563	CF, 56K ohm
R739	24380394	CF, 390K ohm
R740,RY03	24380105	CF, 1M ohm
R732,RY06		
RY08		
R752	24061138	VR, 4.7K ohm, 0.15W
R753	24061148	VR, 220K ohm, 0.15W
R760	24380301	CF, 300 ohm
R761	24941229	CC, 2.2 ohm, 1/4W
R764	70420013	Fuse, RNF25AX4.7
RL20	24380121	CF, 120 ohm
RL25	24000911	Thermistor, 1R5M
RY01	24380304	CF, 300K ohm
RY12	24380474	CF, 470K ohm
RY25	24398103	CF, 10K ohm, $\pm 2\%$
RY26	24398113	CF, 11K ohm, $\pm 2\%$

LOCATION NUMBER	PART NUMBER	DESCRIPTION
RY27	24398473	CF, 47K ohm, $\pm 2\%$
RY30	24360221	CF, 220 ohm
RY33	24380823	CF, 82K ohm
RY34	24380364	CF, 360K ohm
RY37	24360244	CF, 240K ohm
< SEMICONDUCTORS >		
IC501	B0430810	IC, TM4217P, Digital
IC502,IC503	B0351500	IC, TA75902P, OP-AMP
IC601	B0403539	IC, TMP4320P-6205
IC701	B0312500	IC, TA7137P
IC702	B0325080	IC, TA7325P, Dual
Q504,Q506	A6317547	NPN, Transistor, 2SC1815-Y, FA
Q507,Q509		
Q510,Q511		
Q512,Q515		
Q518,Q521		
Q523,Q524		
Q528,Q529		
Q612,Q614		
Q615,Q616		
Q619,Q620		
Q625,Q626		
Q633,Q634		
Q638,Q643		
Q644,Q648		
Q649,Q654		
Q660,Q661	A6317526	NPN, Transistor, 2SC1815-O, FA
Q703,Q708		
Q709,Q710		
Q504,Q509		
Q510,Q511		
Q512,Q515		
Q523,Q524		
Q528,Q615		
Q619,Q620		
Q625,Q626		
Q633,Q634		
Q638,Q643		
Q644,Q648		
Q649,Q703		
Q708,Q709		
Q710		
Q504,Q509	A6317526	NPN, Transistor, 2SC1815-O, FA
Q510,Q511		
Q512,Q515		
Q523,Q524		
Q528,Q615		
Q619,Q620		

LOCATION NUMBER	PART NUMBER	DESCRIPTION
Q619,Q620	A6317567	NPN, Transistor 2SC1815-GR, FA
Q625,Q626		
Q633,Q634		
Q638,Q643		
Q644,Q648		
Q649,Q703		
Q708,Q709	A6534045	PNP, Transistor, 2SA1015-Y, FA
Q710		
Q505,Q508		
Q514,Q522		
Q526,Q611		
Q613,Q618		
Q655	A6534021	PNP, Transistor 2SA1015-O, FA
Q514,Q522		
Q618		
Q514,Q522		
Q618		
Q516		
Q517,Q520	A6848520	NPN, Transistor, 2D880-Y
Q628,Q629		
Q637,Q641		
Q645,Q646		
Q650,Q651		
Q519		
Q653	A671666H	NPN, Transistor, 2SC496-Y, X, TV
Q636,Q640	A6325540	NPN,Transistor,2SC2236-Y
Q704,Q705	A6841900	NPN,Transistor,2SD549
Q706	A6325825	NPN,Transistor,2SC2240GR
Q713	A6533625	NPN,Transistor,2SA970GR
	A6319302	NPN, Transistor, 2C1959-Y, FA
D501,D502	A7246711	Diode, 1S1555V
D503,D505		
D506,D507		
D508,D510		
D511,D512		
D513,D514		
D515,D516		
D517,D518		
D519,D521		
D522,D601		
D603,D604		
D605,D606		
D607,D608		
D609,D610		
D613,D614		
D615,D616		
D617,D618		

LOCATION NUMBER	PART NUMBER	DESCRIPTION
D619,D622 D624,D701 D702,D703 D704	A7246711	Diode, 1S1555V
D520	A7110261	Diode, 05Z9.1-X, Zener
D623	A7109362	Diode, 05Z3.6-X, Zener
D623	A7109363	Diode, 05Z3.6-Y, Zener
D623	70115109	Diode, RD3.9EB2, Zener
< COIL & TRANSFORMER >		
L601	23261050	Coil, AZ9246D, Choke
L701	23283391	Coil, TRF4391JG, Peaking
T701	70214002	Erase, OSC Trans
< MISCELLANEOUS >		
Z601	70153031	Ceramic Resonator KBR-455H
Z602	24000942	Res Block, T-6
Z603	70427013	Res Block, P-7
Z701	70212019	Trap Coil, 65 kHz
P501,P505 P602,P614 P701,P704	23164672	Plug, 3P, BLK
P502,P605 P608,P611 P703	23164673	Plug, 3P, WHT
P503,P504 P601,P609 P612,P702	23164671	Plug, 3P, BRN
P506,P603 P610	23164668	Plug, 4P, BRN
P507,P604	23164665	Plug, 5P, BRN
P606	23164655	Plug, 12P, BRN
P607	23164658	Plug, 9P, BRN
P613	23164659	Plug, 8P, BRN
P651	70163034	2.5MARU Jack, J2501
P706,P707	70163054	Phono Jack Print, K (SW)
POWER BOARD ASSY U801, 70191796		
< CAPACITORS >		
C801	70415068 or 70415069	EL, 6800 μ F, 35V 69W
C802,C803 C804,C805	24232473	CD, 0.047 μ F +80,-20%
C806	24633470	EL, 47 μ F, 50V
C807	24232103	CD, 0.01 μ F, +80%,-20%
C808,C817	24634470	EL, 47 μ F, 25V

LOCATION NUMBER	PART NUMBER	DESCRIPTION
C809,C810	24634100	EL, 10 μ F, 25V
C811	24634331	EL, 330 μ F, 25V
C816	24633222	EL, 0.0022 μ F, 16V
C818	24633470	EL, 47 μ F, 16V
C820	24641101	EL, 100 μ F, 100V
C821	24636470	EL, 47 μ F, 50V
C830	24098011	MT, Cap, 10000 μ F, AC250V
< RESISTORS >		
R801	24963752	OMF, 7.5K ohm, 1W
R802	24360181	CF, 180 ohm
R803	24360102	CF, 1K ohm
R804,R805	24360152	CF, 1.5K ohm
R816,R821	24360122	CF, 1.2K ohm
R824	24360222	CF, 2.2K ohm
R806	24546829	Fusible, 8.2 ohm, 1/2W
R807	24360272	CF, 2.7K ohm
R808	24360473	CF, 47K ohm
R809	24360563	CF, 56K ohm
R810	24360332	CF, 3.3K ohm
R811,R823	24360682	CF, 6.8K ohm
R812	24360472	CF, 4.7K ohm
R813	24962152	OMF, 1.5K ohm, 1/2W
R814	24360223	CF, 22K ohm
R815	24962102	OMF, 1K ohm, 1/2W
R817	24963391	OMF, 390 ohm, 1W
R818	24963472	OMF, 4.7K ohm, 1W
R819	24941122	CC, 1.2K ohm, 1/4W
R820,R825	24360103	CF, 10K ohm
R822	24360153	CF, 15K ohm
R826	24360123	CF, 12K ohm
R851	24061318	VR, 1K ohm, 0.15W
< SEMICONDUCTORS >		
Q801	A6848510	NPN, Transistor, 2SD880-O
Q802	A6317526	NPN, Transistor, 2SC1815-O, FA
Q803	A6533730	PNP, Transistor, 2SA1012-Y, FA
Q806,Q808 Q810	A6317547	NPN, Transistor, 2SC1815-Y, FA
Q807	A6319283	NPN, Transistor, 2SC1959-O, FA
Q809	A650246A	PNP, Transistor, 2SA496-Y, X
Q811	A6848510	NPN, Transistor, 2SD880-O
Q812	A6848520	NPN, Transistor, 2SD880-Y

LOCATION NUMBER	PART NUMBER	DESCRIPTION
Q813	A6534021	PNP, Transistor 2SA1015-O, FA
Q814	A6319302	NPN, Transistor, 2SC1959-Y, FA
D801	70115160	Rectifier, D5FB10F
D805,D815	A7246711	Diode, 1S1555 (TV)
D806	A7246602	Diode, 1S1553 (TV)
D807	A7286107	Diode, 02Z6.2A, Zener
D808	A7109202	Diode, 05Z2.0X, Zener
D811,D812	A7568521	Diode, 1S1885, FA
D813,D814		
D817		
D816	A7110018	Diode, 05Z5.6-Z, Zener
D818	A7568754	Diode, 1S1887A, FA-1
D819	23115878	Diode, UPC574JC, Zener
< TRANSFORMER >		
T801	23211997	TRS, Line Filter, TRF3004C
T802	70213067	Transformer, VPW9600S
< MISCELLANEOUS >		
S801	70145192	Switch, ICIP
F801,F804	23144125	Fuse, 0.5A, 250V
F802	70144029	Fuse, 2A, 250V
F803	23144164	Fuse, 1.25A, 250V
P801	70168058	Power Cord
P802,P803	23164966	Plug 3P
P804	23164671	Plug 3P, BRN
P805	23164665	Plug 5P, BRN
P806	23164668	Plug 4P, BRN
P807	23164666	Plug 5P, BLK
P808	23164662	Plug 6P, BRN
P809	23164658	Plug 9P, BRN
P810	23164669	Plug 4P, BLK
DC/DC CONVERTOR BOARD ASSY U901 70191806		
< CAPACITORS >		
C901	70415072	EL, 470 μ F, 35V, 04W
C902	70415073	EL, 220 μ F, 35V, 04W
C903	24692473	PF, 0.047 μ F, 50V
C904	24232103	CD, 0.01 μ F, +80%, -20%
< RESISTORS >		
R901	24360680	CF, 68 ohm
R902	24941335	CC, 3.3M ohm, 1/4W
R903	24360220	CF, 22 ohm
R904	24360562	CF, 5.6K ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
R905	24360153	CF, 15K ohm
R906	24360182	CF, 1.8K ohm
R907,R908	24332228	Metal, 0.022 ohm, 1W
R909	24360221	CF, 220 ohm
R910	24360123	CF, 12K ohm
R951	24061134	VR, 1K ohm, 0.15W
< SEMICONDUCTORS >		
IC903	70119212	Voltage Regulator, UPC305C
Q901	A6533730	PNP, Transistor, 2SA1012-Y
Q902,Q904	A6509141	PNP, Transistor, 2SA562TM-Y, FA
D901	70115164	Diode, 30DF1
D902	A7110261	Diode, 05Z9.1X, Zener
< COILS >		
L901,L903	70211045	Coil, 0.02MH, 2.5A Choke
L902	70211043	Coil, 0.18MH, 2.5A Choke
SERVO CLOCK BOARD ASSY U961, 70191782		
< CAPACITORS >		
C961	24232103	CD, 0.01 μ F, +80%, -20%
C962,C963	24212102	CD, 1000pF, \pm 10%
C967,C972		
C973		
C964,C965	24353620	CD, 62pF
C966	24436151	CD, 105pF
C968	24436471	CD, 470pF
C969	24692152	PF, 1500pF
C970	24436331	CD, 330pF
C971	24353101	CD, 100pF
< RESISTORS >		
R961	24380221	CF, 220 ohm
R962,R966	24380122	CF, 1.2K ohm
R970		
R963,R977	24380393	CF, 39K ohm
R978		
R964,R973	24380472	CF, 4.7K ohm
R975,R969		
R965	24380391	CF, 390 ohm
R967,R971	24380823	CF, 82K ohm
R968,R972	24380153	CF, 15K ohm
R976		
R974,R975	24380123	CF, 12K ohm
< SEMICONDUCTORS >		
Q961,Q962	A6317547	NPN, Transistor, 2SC1815-Y, FA
Q963,Q964		
Q965,Q966		
Q967		

LOCATION NUMBER	PART NUMBER	DESCRIPTION
Q961,Q962 Q963,Q964 Q965,Q966 Q967	A6317526	NPN, Transistor, 2SC1815-O, FA
Q961,Q962 Q963,Q964 Q965,Q966 Q967		
Q961,Q962 Q963,Q964 Q965,Q966 Q967		
Q961,Q962 Q963,Q964 Q965,Q966 Q967		
Q961,Q962 Q963,Q964 Q965,Q966 Q967	A6317567	NPN, Transistor, 2SC1815-GR, F
Q961,Q962 Q963,Q964 Q965,Q966 Q967	A6317567	NPN, Transistor, 2SC1815-GR, F
Q968	A6534045	PNP, Transistor, 2SA1015-GR, FA
Q968	A6534021	PNP, Transistor, 2SA1015-O, FA
Q968	A6534045	PNP, Transistor, 2SA1015-GY, FA
D961	A7246711	Diode, 1S1555V
< TRANSFORMER >		
T961	23252969	Coil, TRF7035
< MISCELLANEOUS >		
X961	70153029	Crystal, 2.986 MHz
P961	23164665	Plug 5P, BRN
LOGIC CONTROL BOARD ASSY UL01, 70191783		
< CAPACITORS >		
CLO1	24636229	EL, 2.2 μ F, 50V
< RESISTORS >		
RLO1,RLO2	24360221	CF, 220 ohm
RLO3	24360682	CF, 6.8K ohm
RLO4	24360161	CF, 160 ohm
RLO5,RLO6	24941681	CC, 680 ohm, 1/4W
RLO8	24360472	CF, 4.7K ohm
< SEMICONDUCTORS >		
QLO1	A6534045	PNP, Transistor, 2SA1015-Y, FA
	or A6534021	2SA1015-O, FA
DL02,DL04 DL05,DL09	70115167	LED, YEL Stanley, PY5608S
DL07		
DL13	70115166	LED, RED Stanley, BR5628S
DL17	A8600607	LED, TLR113A
	A8605666	LED, TLR113A

LOCATION NUMBER	PART NUMBER	DESCRIPTION
< MISCELLANEOUS >		
SL01,SL02 SL03,SL04 SL05,SL07 SL09	70145119	Switch Tack
PL01		
PL02		
PL03		
	23164659	Plug 8P, BRN
	23164655	Plug 12P, BRN
	23164672	Plug 3P, BLK
FL MOTOR DRIVE UT01, 70191784		
< CAPACITORS >		
CL81	24634471	EL, 330 μ F, 25V
CL82,CL83	24232103	CD, 0.01 μ F, +80%,-20%
< RESISTORS >		
RL81	24360153	CF, 15K ohm
RL82	24360472	CF, 4.7K ohm
RL83,RL84	24360103	CF, 10K ohm
RL85	24941821	CC, 820 ohm, 1/4W
RL86	24941102	CC, 1K ohm, 1/4W
< SEMICONDUCTORS >		
QL81	A6317567	NPN, Transistor, 2SC1815-GR, FA
	or A6317581	NPN, Transistor, 2SC1815-BL, FA
QL82	A6534021	PNP, Transistor, 2SA1015-O, FA
	or A6534045	PNP, Transistor, 2SA1015-Y, FA
	or A6534063	PNP, Transistor, 2SA1015-GR, FA
QL83	A6325540	NPN, Transistor, 2SC2236-Y
QL84	A6533730	PNP, Transistor, 2SA1012-Y
QL85	A6848530	NPN, Transistor, 2SD880-GR
QL86	A6533240	PNP, Transistor, 2SA966-Y
DL81,DL82 DL83,DL84 DL86,DL87	A7246711	Diode, 1S1555, TV
DL85		
	A7110040	Diode, 05Z5.1X
	or A7110041	Diode, 05Z5.1Y
< MISCELLANEOUS >		
PL81	23164669	Plug, 4P, BLK
PL82	24164671	Plug, 3P, BRN

LOCATION NUMBER	PART NUMBER	DESCRIPTION
TIMER CONTROL BOARD ASSY UX01, 70191785		
< CAPACITORS >		
CX01	70415087	S. Capa. 0.22 μ F, +80%, -20%
CX02, CX04 CX05, CX07	24232103	CD, 0.01 μ F, +80%, -20%
CX03, CX06	24633100	EL, 10 μ F, 16V
CX08	24632101	EL, 100 μ F, 10V
CX09, CX10	24432101	CD, 100pF, \pm 10%
CX11	24432391	CD, 390pF, \pm 10%
CX12	24232103	CD, 0.01 μ F
CX13	24636229	EL, 2.2 μ F, 50V
< RESISTORS >		
RX01	24360102	CF, 1K ohm
RX02	24380562	CF, 5.6K ohm
RX03	24380201	CF, 200 ohm
RX04	24380102	CF, 1K ohm
RX05	24380561	CF, 560 ohm
RX06, RX11	24380152	CF, 1.5K ohm
RX07	24380332	CF, 3.3K ohm
RX08, RX12 RX14, RX20	24380103	CF, 10K ohm
RX41	24380333	CF, 33k ohm
RX10	24380362	CF, 3.6K ohm
RX13	24380392	CF, 3.9K ohm
RX15	24380223	CF, 22K ohm
RX16	24380123	CF, 12K ohm
RX19, RX22 RX23, RX24 RX25, RX33 RX36, RX39	24380513	CF, 51K ohm
RX26	24360101	CF, 100 ohm
RX27, RX28	24380101	CF, 100 ohm
RX30, RX31 RX32, RX47	24380222	CF, 2.2K ohm
RX34, RX35 RX37, RX38 RX42	24360513	CF, 51K ohm
RX40	24380472	CF, 4.7K ohm
RX43	24380334	CF, 330K ohm
RX44, RX45 RX46	24360222	CF, 2.2K ohm
RX48	24360103	CF, 10K ohm
RX49	24380102	CF, 1K ohm
< SEMICONDUCTORS >		
ICX01	B0403537	IC, TMP4320P-6203
QX02, QX04 QX05, QX06	A6332430	NPN, Transistor, 2SC2458Y

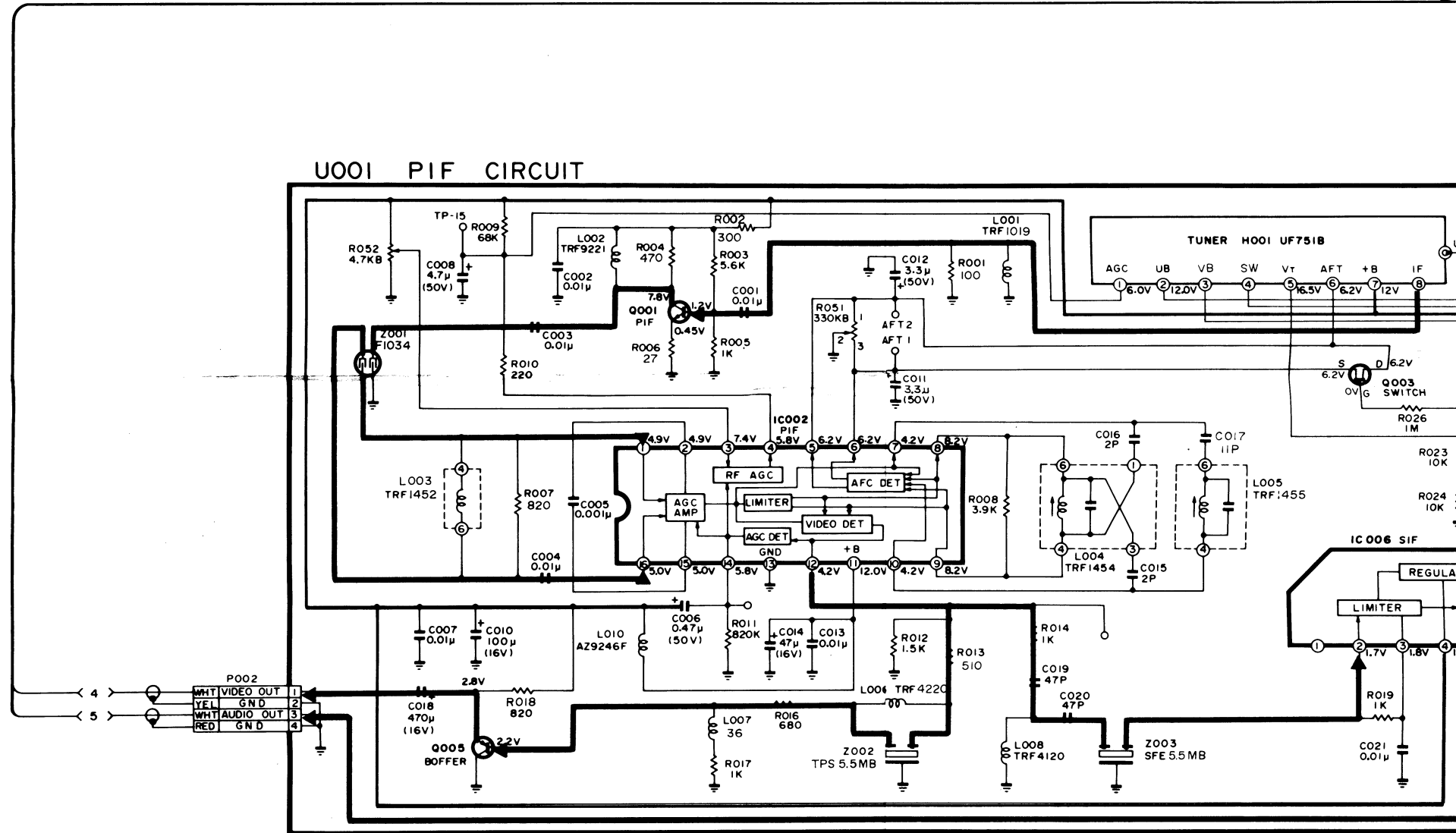
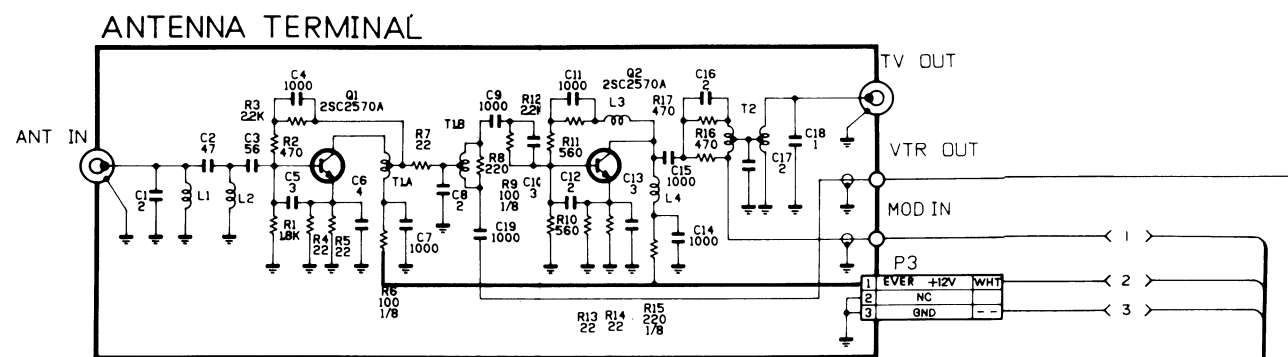
LOCATION NUMBER	PART NUMBER	DESCRIPTION
QX07, QX08 QX09, QX10 QX12	A6332430	NPN, Transistor, 2SC2458Y
QX02, QX04 QX05, QX06 QX07, QX08 QX09, QX10 QX12	70114187	NPN, Transistor, 2SC2785
QX03	A6509141	PNP, Transistor, 2SA562TMY
DX01	A7110041 or A7110042	Diode, 05Z5.1Y, Zener Diode, 05Z5.1Z, Zener
DX02, DX05 DX06, DX07 DX08, DX09 DX10	A7246711	Diode, 1S1555 (TV)
DX03	A7568521	Diode, 1S1885, FA
DX04	A7109433	Diode, 05Z4.3-Y, Zener
DX11	A7110076	Diode, 05Z6.2-Y, Zener
< COILS >		
LX01	23261050	Coil, AZ9246D, Choke
< MISCELLANEOUS >		
ZX01	70153031	Ceramic Resonator, 455 kHz
ZX02, ZX03	24000916	Res. Block P-4
ZX04	70427020	Res. Block P-7
ZX05	24094863	Res. Block P-4
PX01	23164670	Plug 4P, WHT
PX02	23164673	Plug 3P, WHT
PX03	23164671	Plug 3P, BRN
PX04	23164669	Plug 4P, BLK
PX05	23164668	Plug 4P, BRN
TIMER SELECTOR BOARD ASSY UX61, 70191810		
< CAPACITORS >		
CX61	24636010	EL, 1 μ F, 50V
CX62, CX63	24232103	CD, 0.01 μ F, +80%, -20%
CX64	24634101	EL, 100 μ F, 25V
< RESISTORS >		
RA01, RA02 RA03, RA04 RA05, RA06 RA07, RA08 RA09, RA10 RA11, RA12 RA13	24360562	CF, 5.6K ohm
RA51	70421189	Poteme E 12
RX61	24360101	CF, 100 ohm

LOCATION NUMBER	PART NUMBER	DESCRIPTION
RA15, RA17 } RA19	24941561	CF, 560 ohm, 1/4W
RA20	24360363	CF, 36K ohm
RA21	24360154	CF, 150K ohm
RA51	70421189	Poteme E 12
RX61	24360101	CF, 100 ohm
RX62	24360103	CF, 10K ohm
RX63, RX64 } RX65, RX66 } RX67, RX68 } RX69	24360510	CF, 51 ohm
RX70	24360131	CF, 130 ohm
RX71, RX72 } RX73	24360820	CF, 82 ohm
RX74	24360271	CF, 270 ohm
RX75	24941681	CC, 680 ohm, 1/4W
RX77	24360241	CF, 240 ohm
< SEMICONDUCTORS >		
ICA01	B0470282	C2-MOS, TC4028BP
ICA02, ICA03	B0275005	IC, TD62501P
QA04, QA05 } QA06, QX61 } QX62, QX63 } QX64, QX65 } QX66, QX67 } QX68, QX69 } QX70, QX71 } QX72, QX73 } QX73	A6534045	PNP, Transistor, 2SA1015-Y, FA
DA01, DA02 } DA03, DA04 } DA05, DA06 } DA07, DA08 } DA09, DA10 } DA11, DA12 } DX62, DX63 } DX64, DX65 } DX66	A8605679	LED, TLG113A (FA)
DA11, DA12 } DA13, DA14 } DA15, DA16 } DA17, DA18 } DA19, DA20 } DA21, DA22 } DA23, DA24 } DA25, DA26 } DA27, DA28 }	A7246711	Diode, 1S1555V

LOCATION NUMBER	PART NUMBER	DESCRIPTION
DA29, DA30 } DA31, DA32 } DA33, DA34 } DA35, DA36 } DA37	A7246711	Diode, 1S1555V
DA40	A7110114	Diode, 05Z6.8X, Zener
DA41	A7110462	Diode, 05Z13Y, Zener
DX61	A8635330	LED, TLG4163
DX68	A8600607	LED, TLR113A
< MISCELLANEOUS >		
SA01	70145174	Switch Lever
SX61	70145170	Switch SUV31
SX62, SX63 } SX64, SX65 } SX66, SX67 } SX68	70145119	Switch Tact
PX61	23164671	Plug 3P, BRN
PX62	23164668	Plug 4P, BRN
PX63	23164672	Plug 3P, BLK
PX64	23164659	Plug 8P, BRN
COMPONENTS NOT MOUNTED ON PC BOARD		
< MISCELLANEOUS >		
H003	70142043	VT609
H004	70123047	RF Unit, MD5536T
P221	70165144	Plug 6P, LP, Micro
L661, L662	70212003	Sensing Coil, 0.18MH
C661, C662 } C663, C664 }	24094554	CD, 0.001 μ F, 50V
S652, S654 } S656	70145168	Leaf, Switch
S655	70145173	Cam, Switch
S651	70145185	Leaf Switch
S653	70145111	Switch
MODULE UNITS AND CIRCUIT BOARD ASSEMBLES ASSY		
U001	70191809	PIF, Board Assy
U201	70191779	Video Board Assy
U301	70191780	Video 2, Board Assy
U501	70191781	Servo Logic Audio Board Assy
U801	70191796	Power Board Assy
U901	70191806	DC/DC Convertor Board Assy

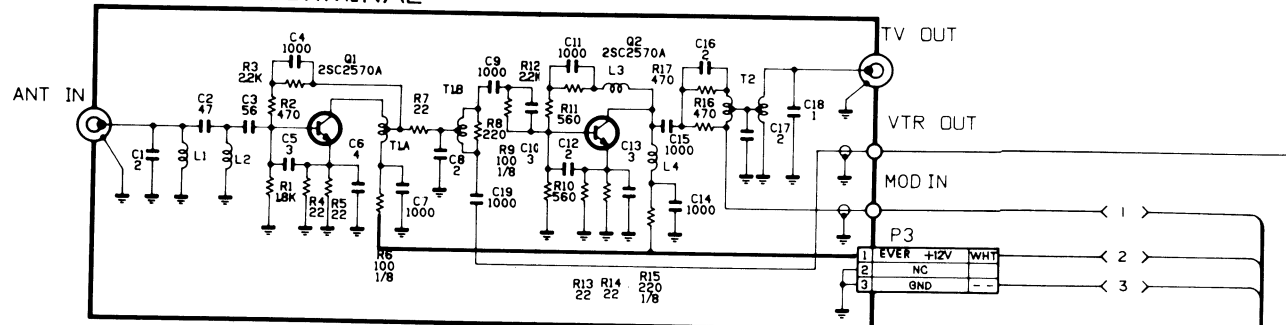
TOSHIBA

SCHEMATIC DIAGRAM OF V-9600

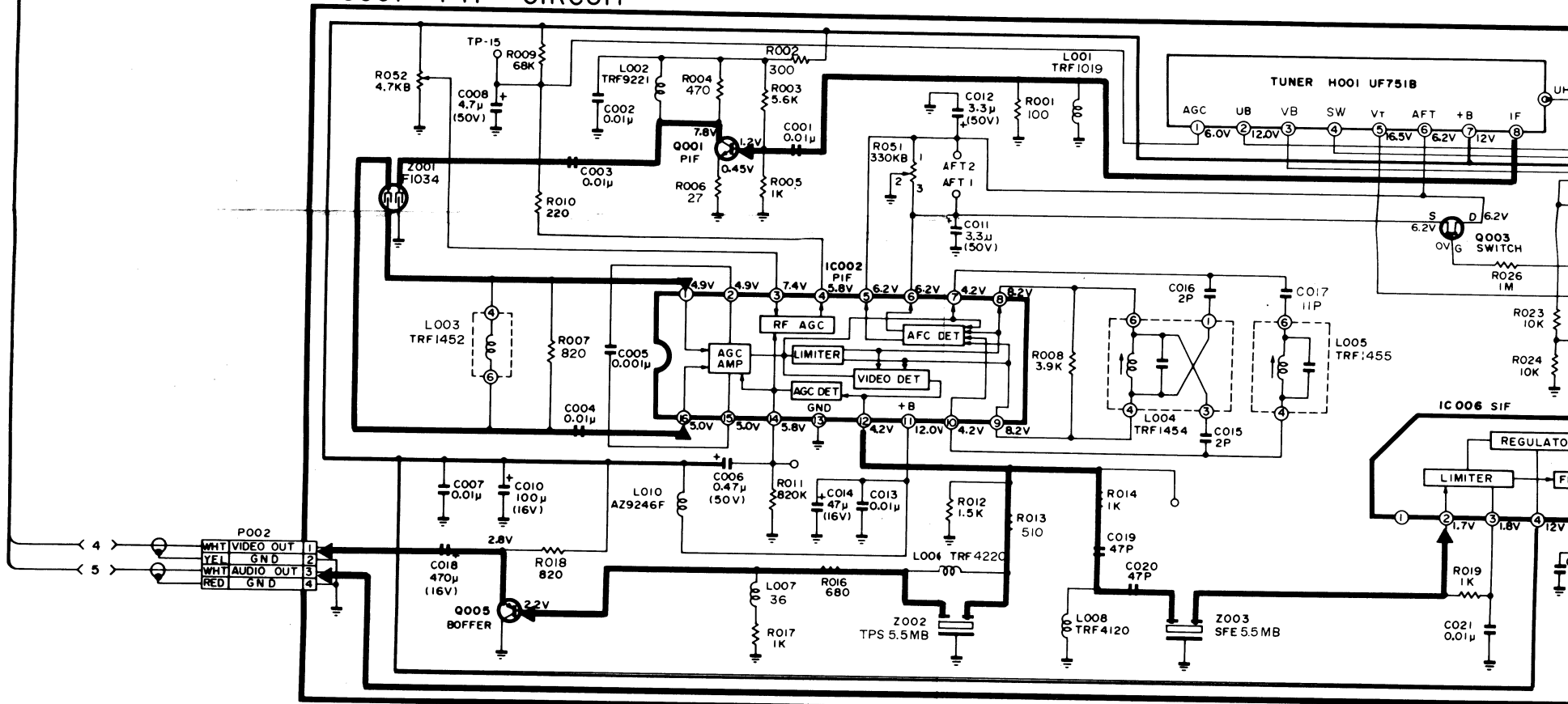


U901 DC-DC CONVERTER CIRCUIT

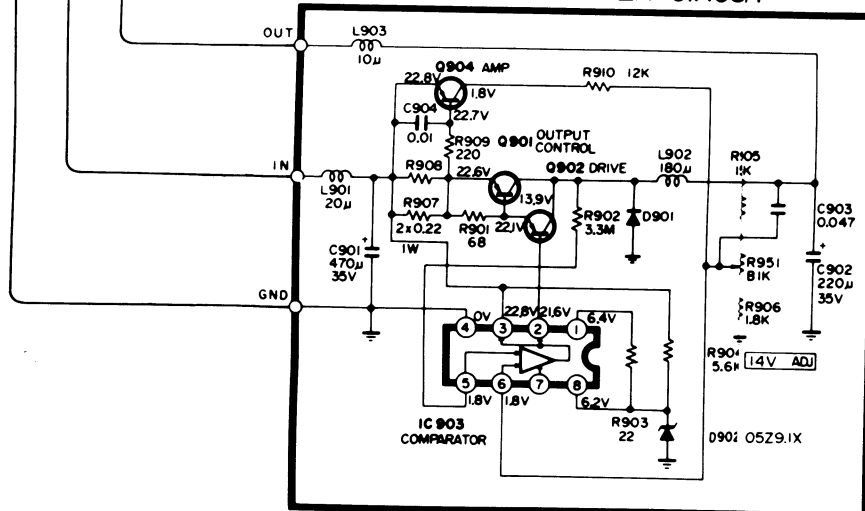
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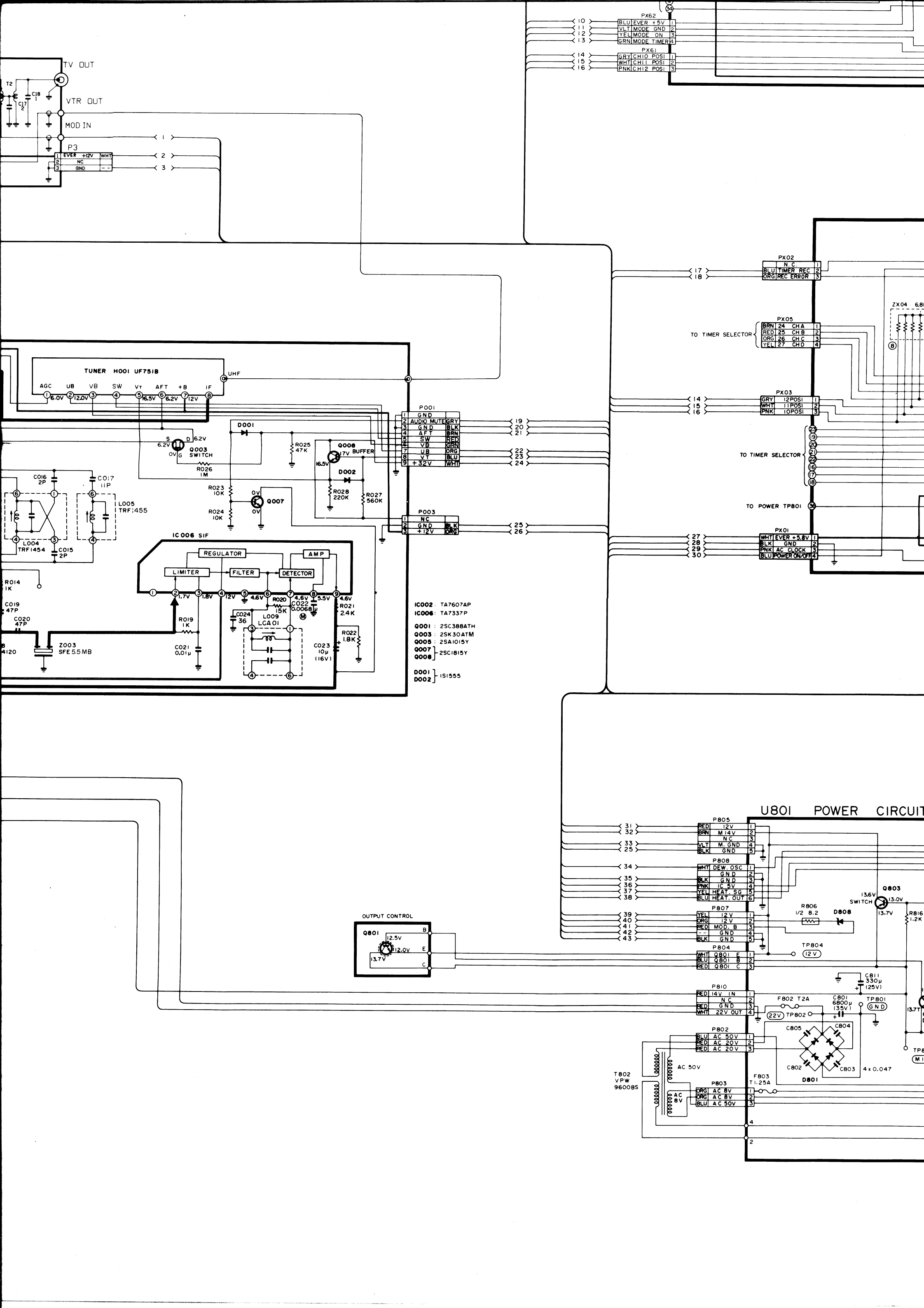
U001 PIF CIRCUIT



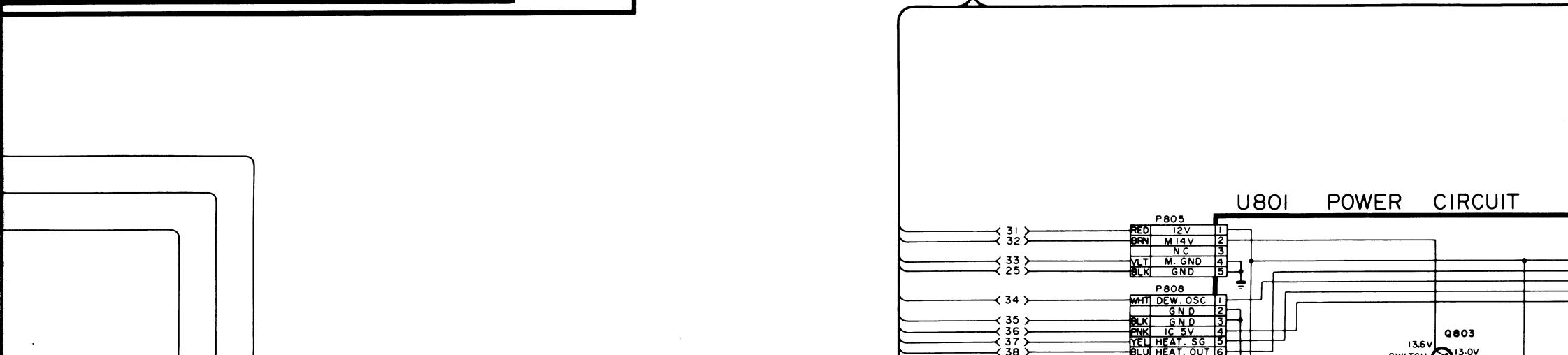
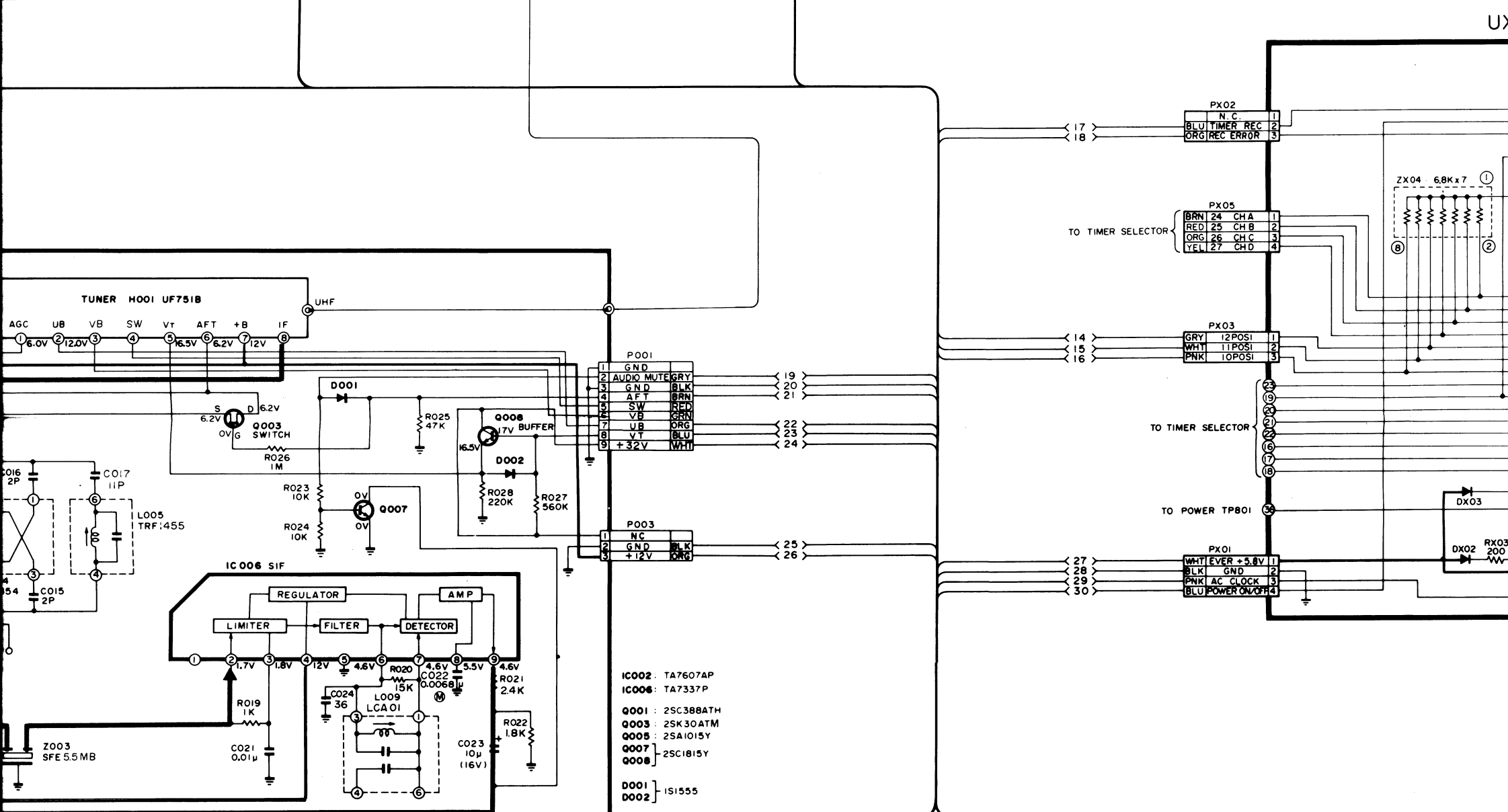
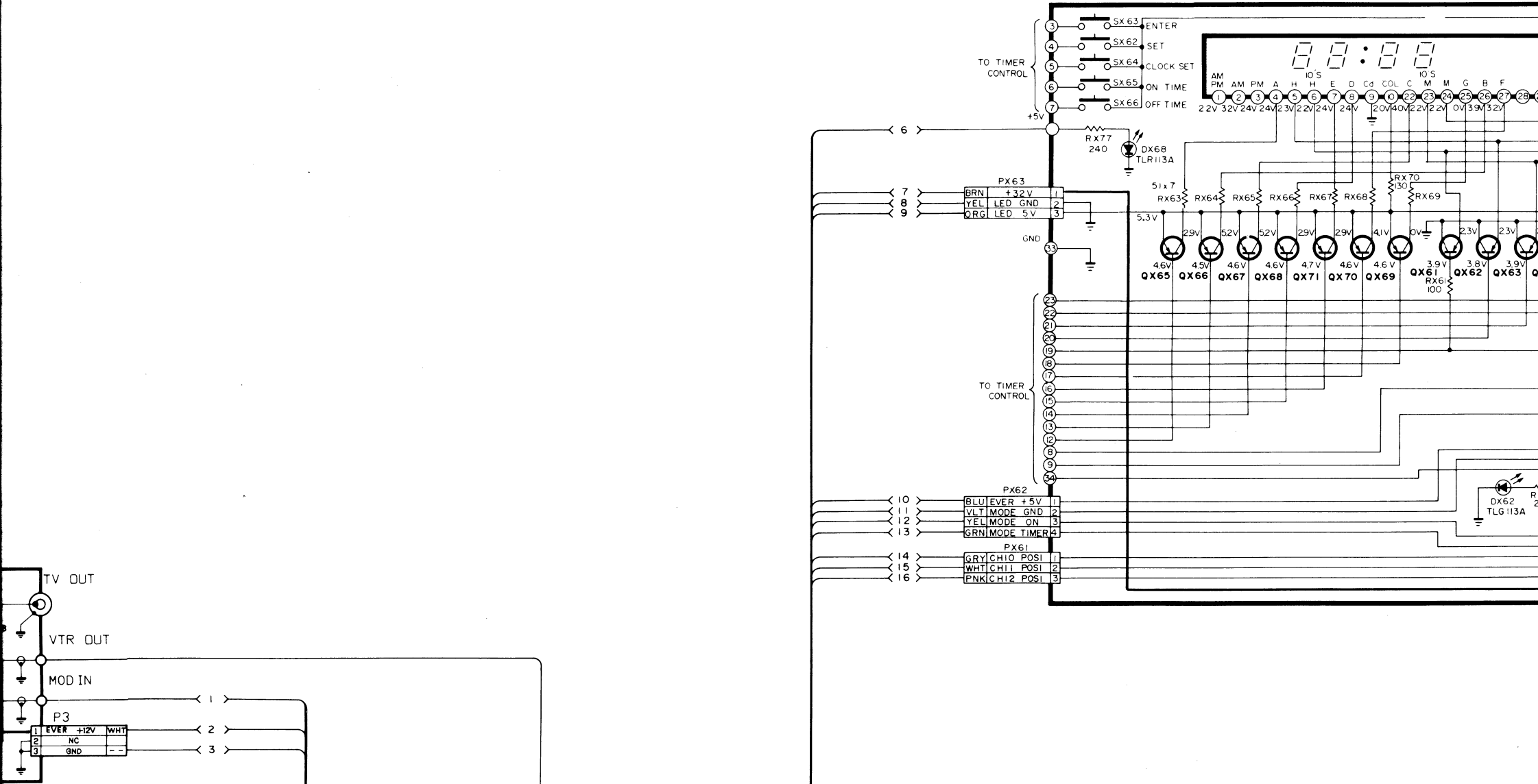
U901 DC-DC CONVERTER CIRCUIT



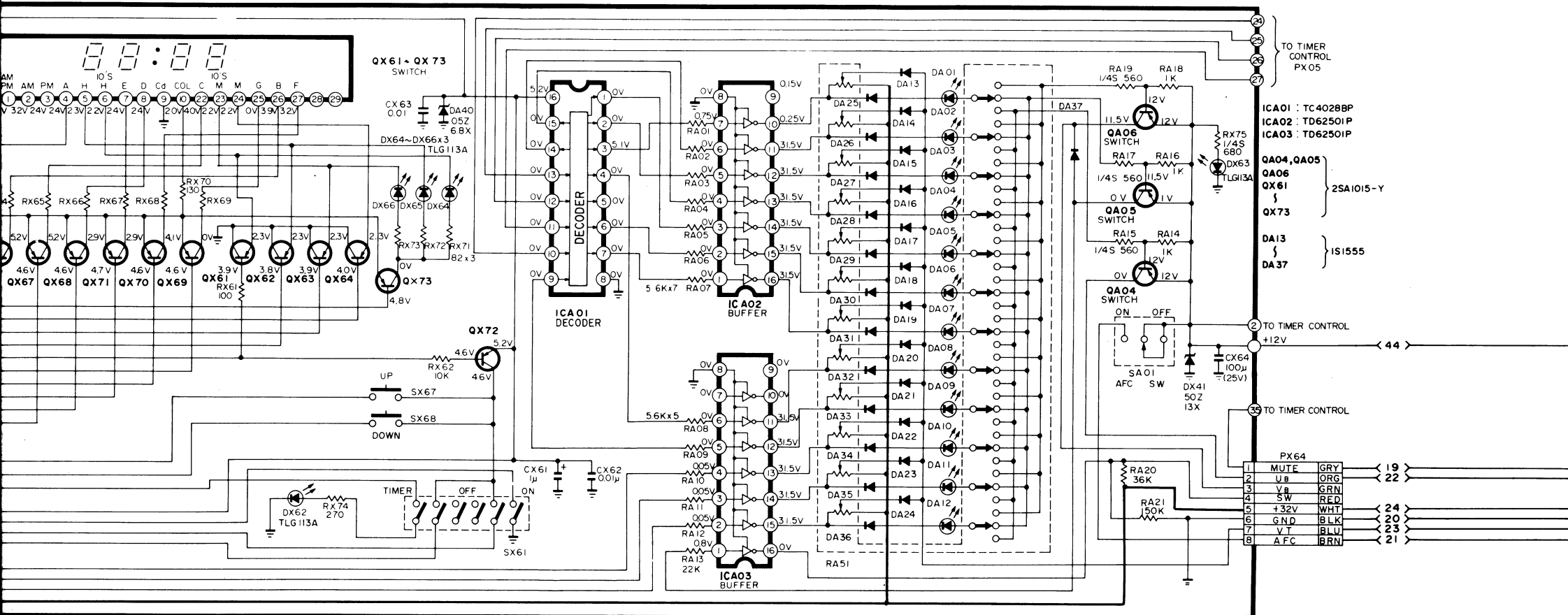
IC 903: μ PC 305C
D 901: 30DF1
Q 901: 2SA1012-Y
Q 902: 2SA562 TM-Y
Q 904:



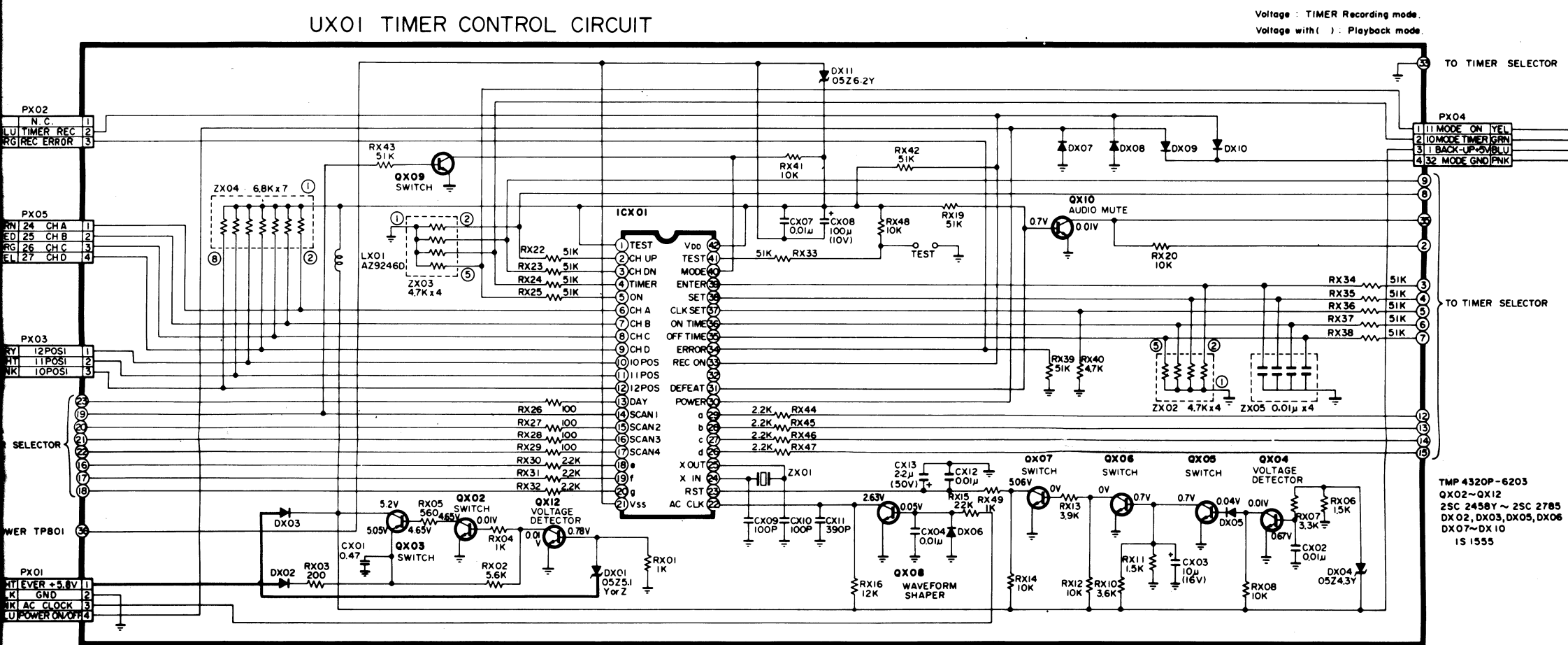
UX61 TIMER SE



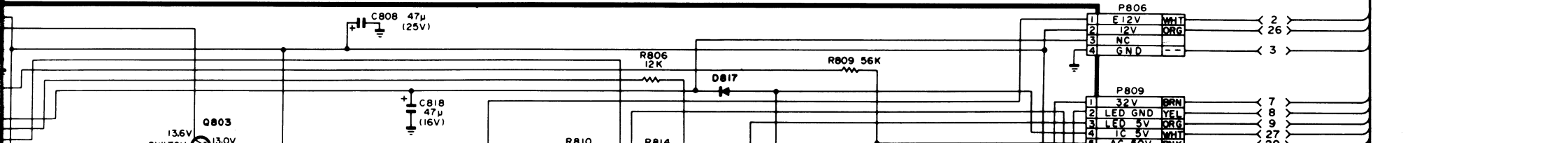
UX61 TIMER SELECTOR CIRCUIT

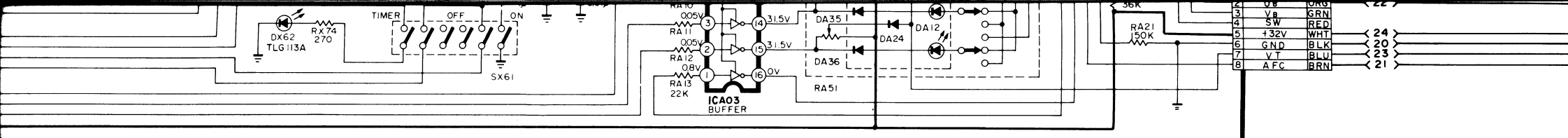


UX01 TIMER CONTROL CIRCUIT



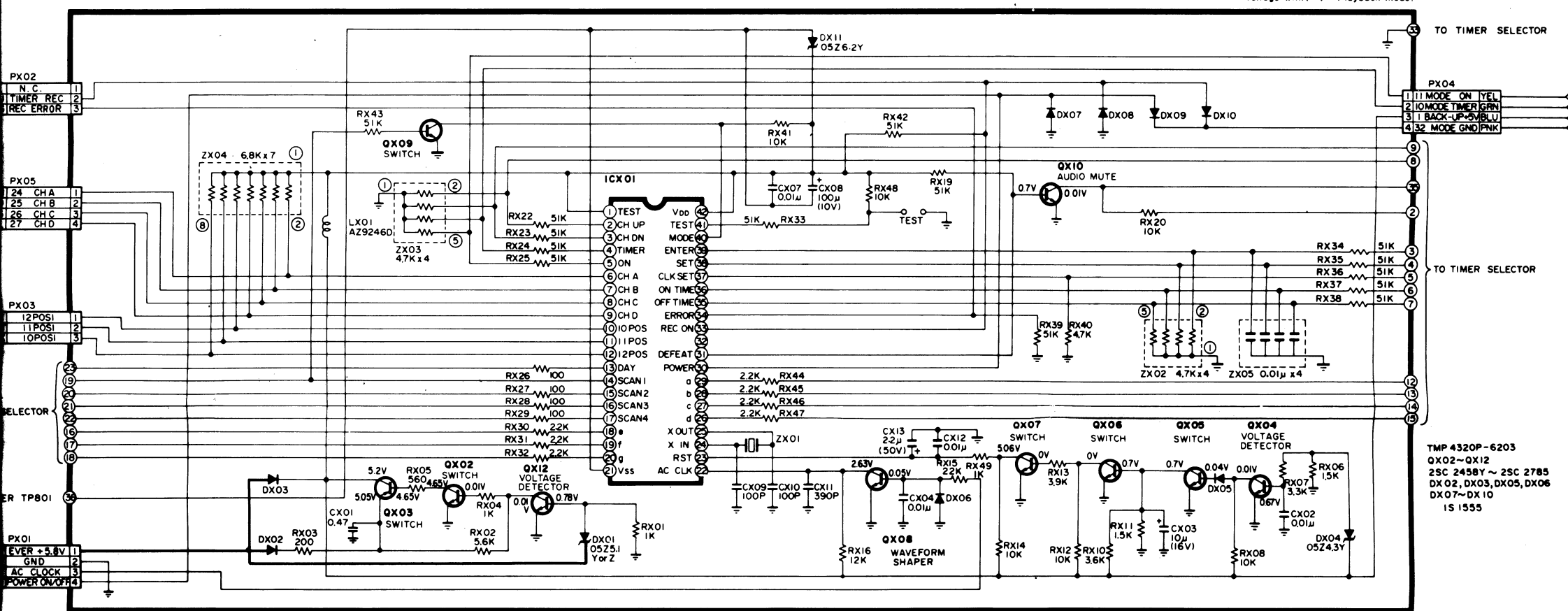
UX01 POWER CIRCUIT





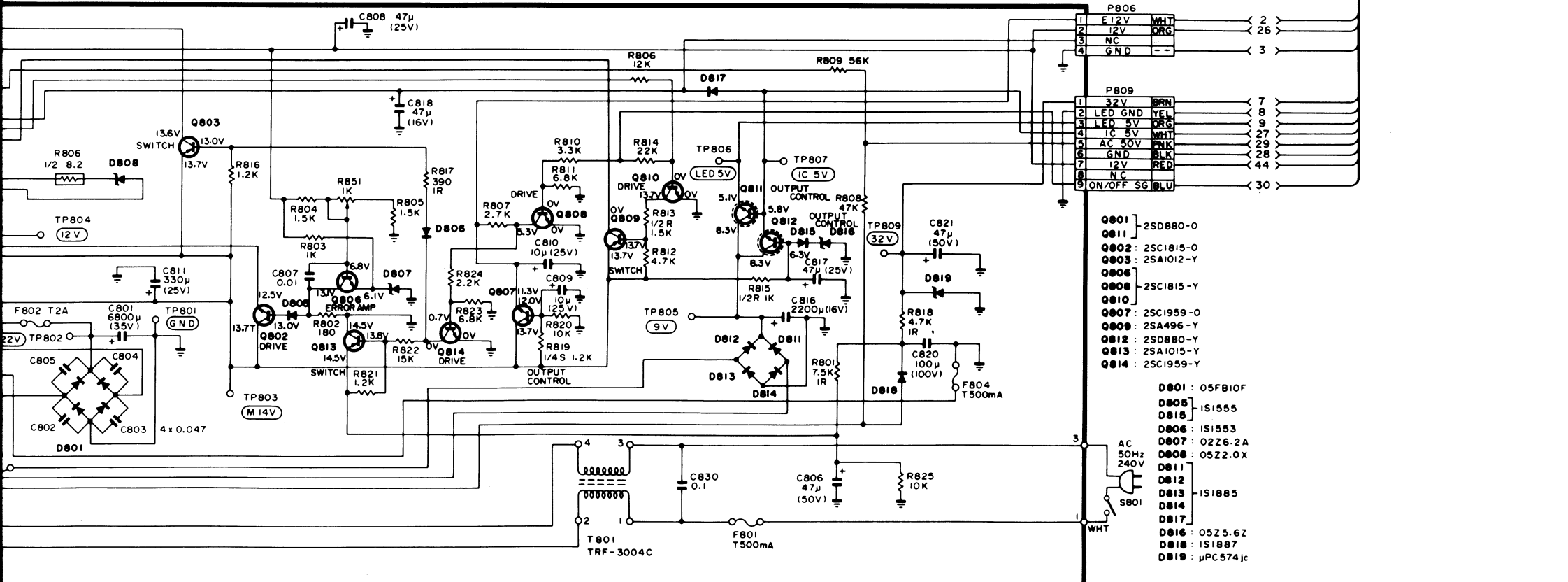
UX01 TIMER CONTROL CIRCUIT

Voltage : TIMER Recording mode.
Voltage with () : Playback mode.

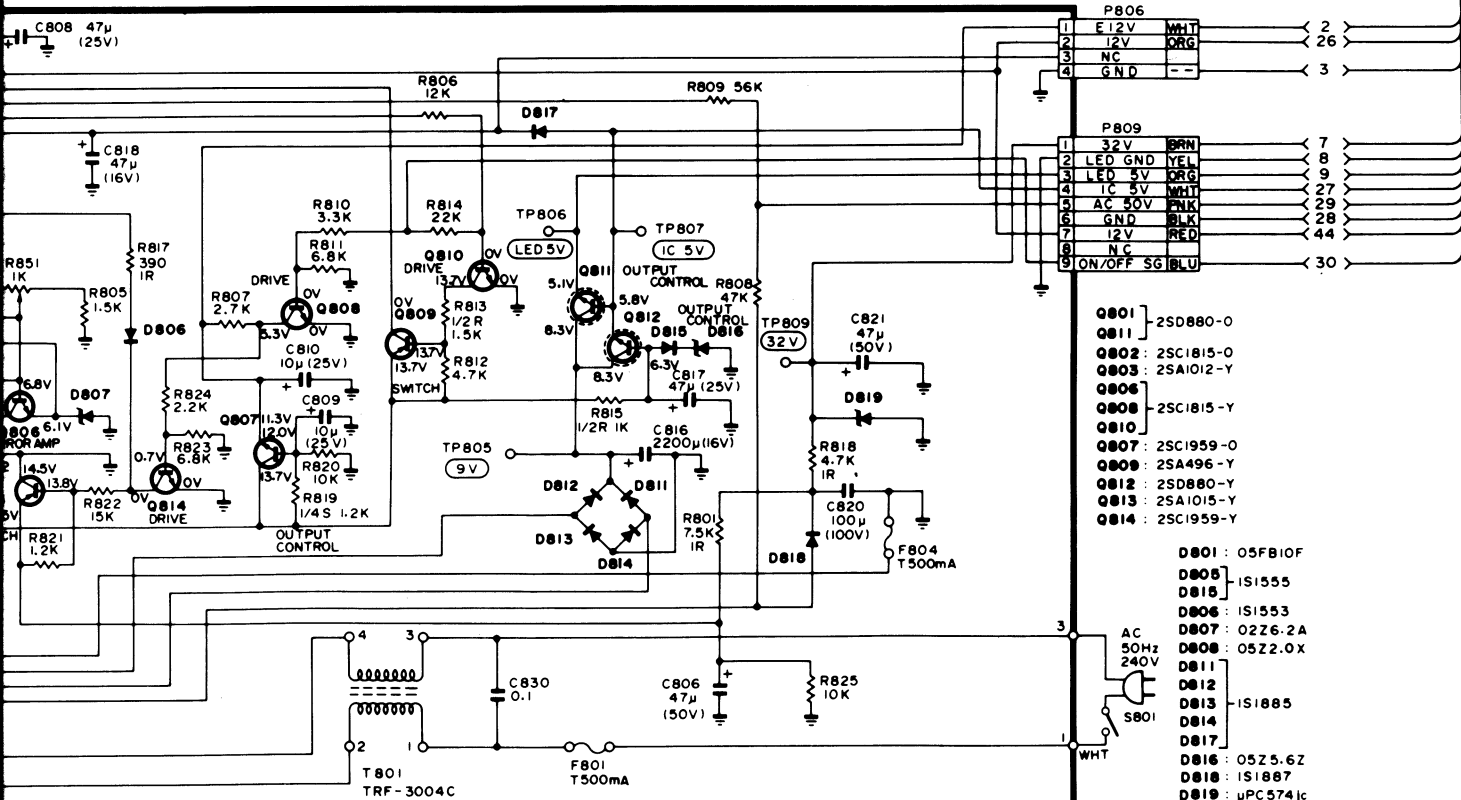
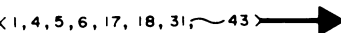


TMP 4320P-6203
QX02~QX12
2SC 2458Y ~ 2SC 2785
DX02, DX03, DX05, DX06
DX07~DX10
IS 1555

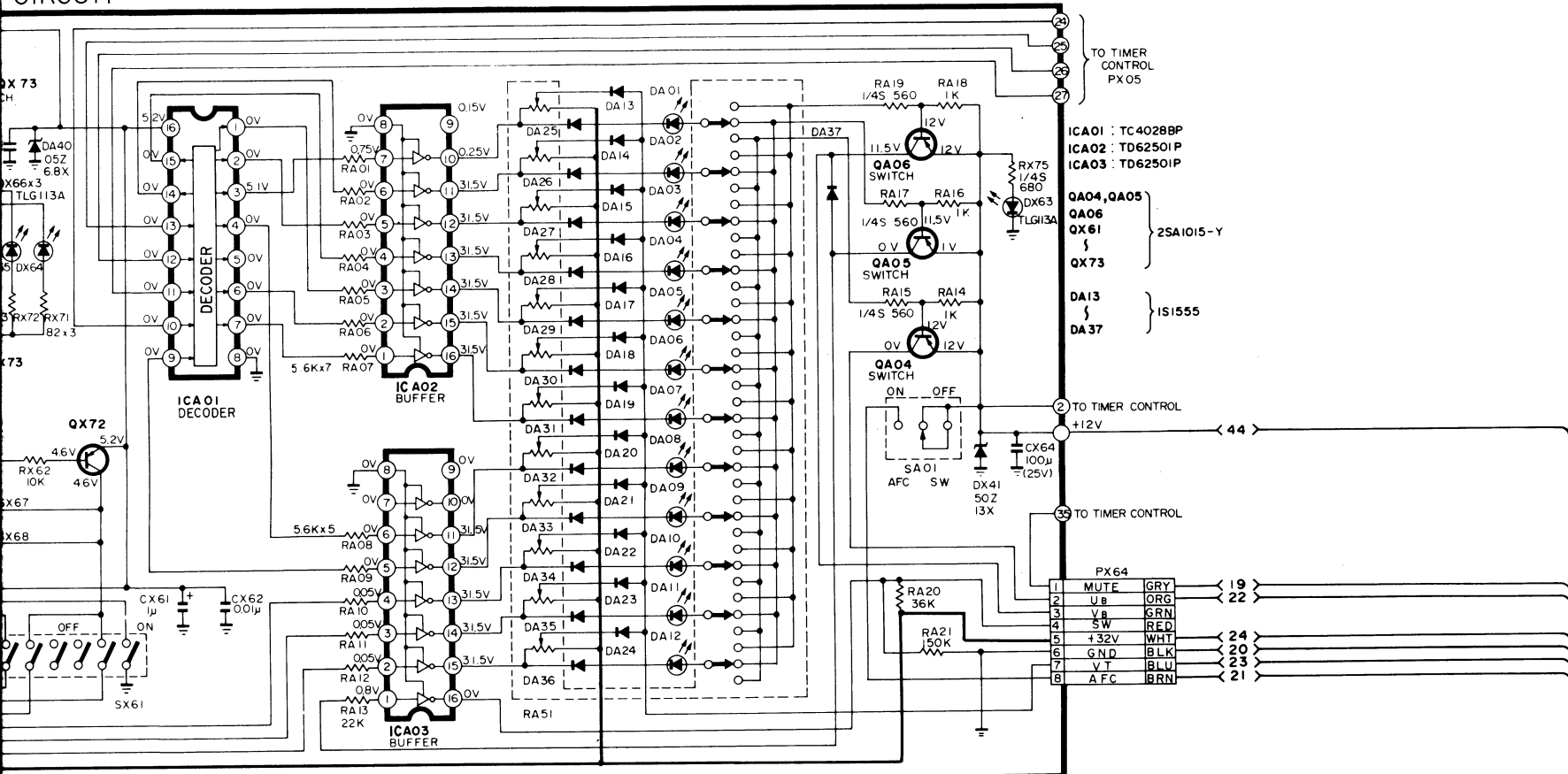
P801 POWER CIRCUIT



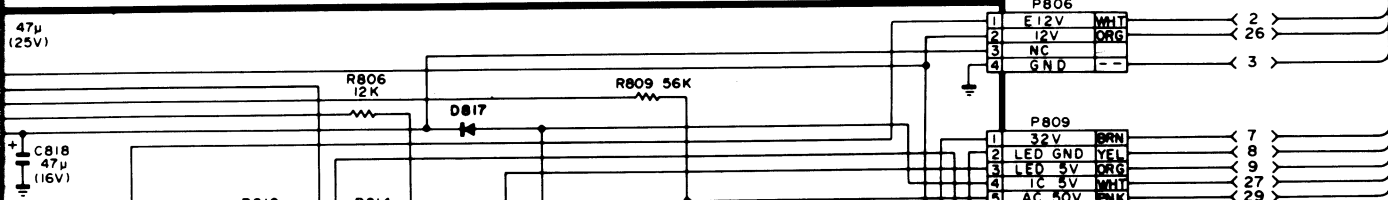
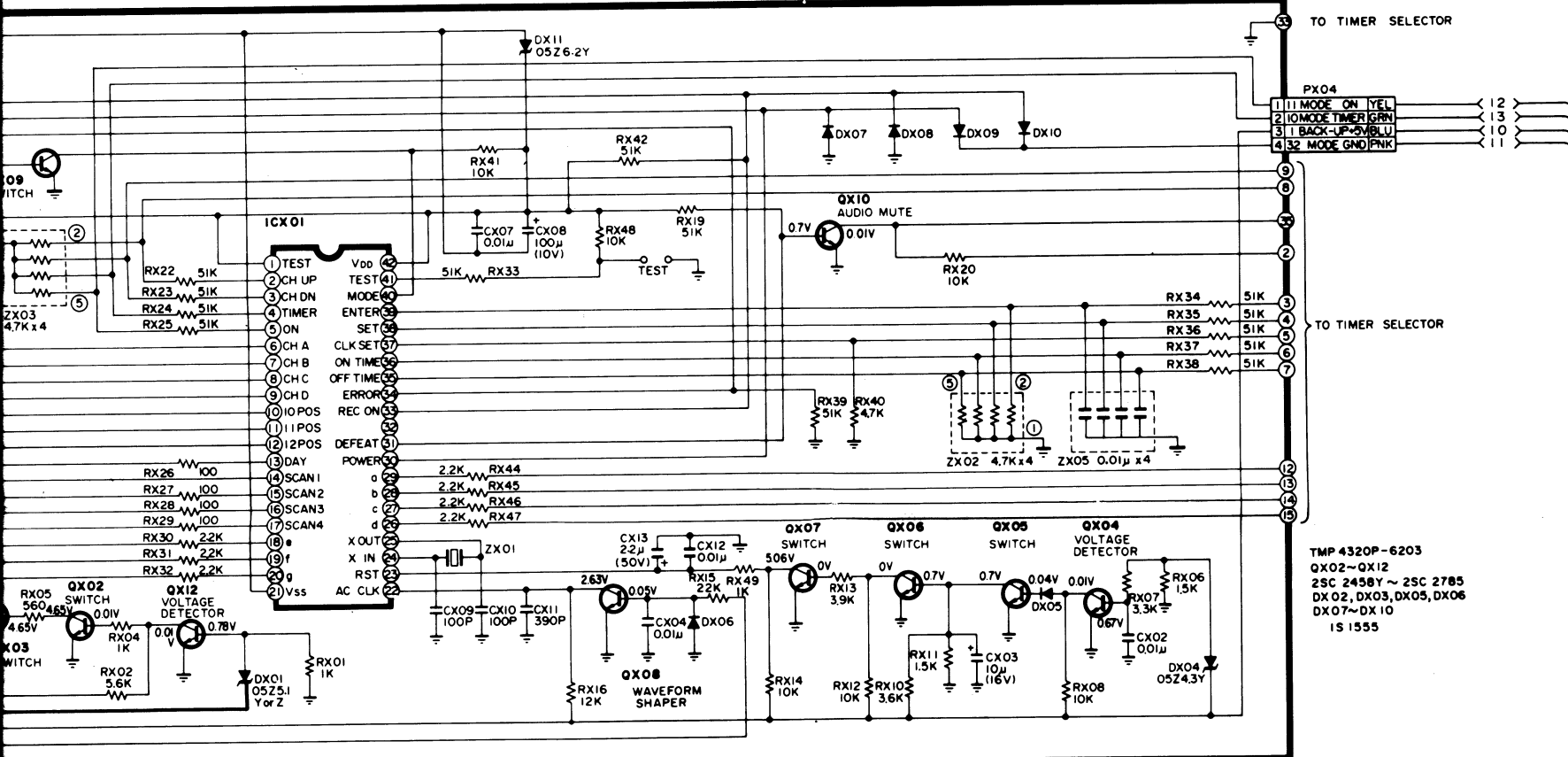
Q801 : 2SD880-0
Q802 : 2SC1815-0
Q803 : 2SA1012-Y
Q804 : 2SC1815-Y
Q805 : 2SC1815-Y
Q806 : 2SC1815-Y
Q807 : 2SC1959-0
Q808 : 2SA496-Y
Q809 : 2SA496-Y
Q810 : 2SC1959-0
Q811 : 2SC1959-0
Q812 : 2SD880-Y
Q813 : 2SA1015-Y
Q814 : 2SC1959-Y
D801 : 05F810F
D802 : IS1555
D803 : IS1555
D804 : IS1555
D805 : 02Z6.2A
D806 : 05Z2.0X
D807 : IS1885
D808 : IS1885
D809 : IS1885
D810 : IS1885
D811 : IS1885
D812 : IS1885
D813 : IS1885
D814 : IS1885
D815 : IS1885
D816 : 05Z5.6Z
D817 : IS1887
D818 : IS1887
D819 : μ PC574jc



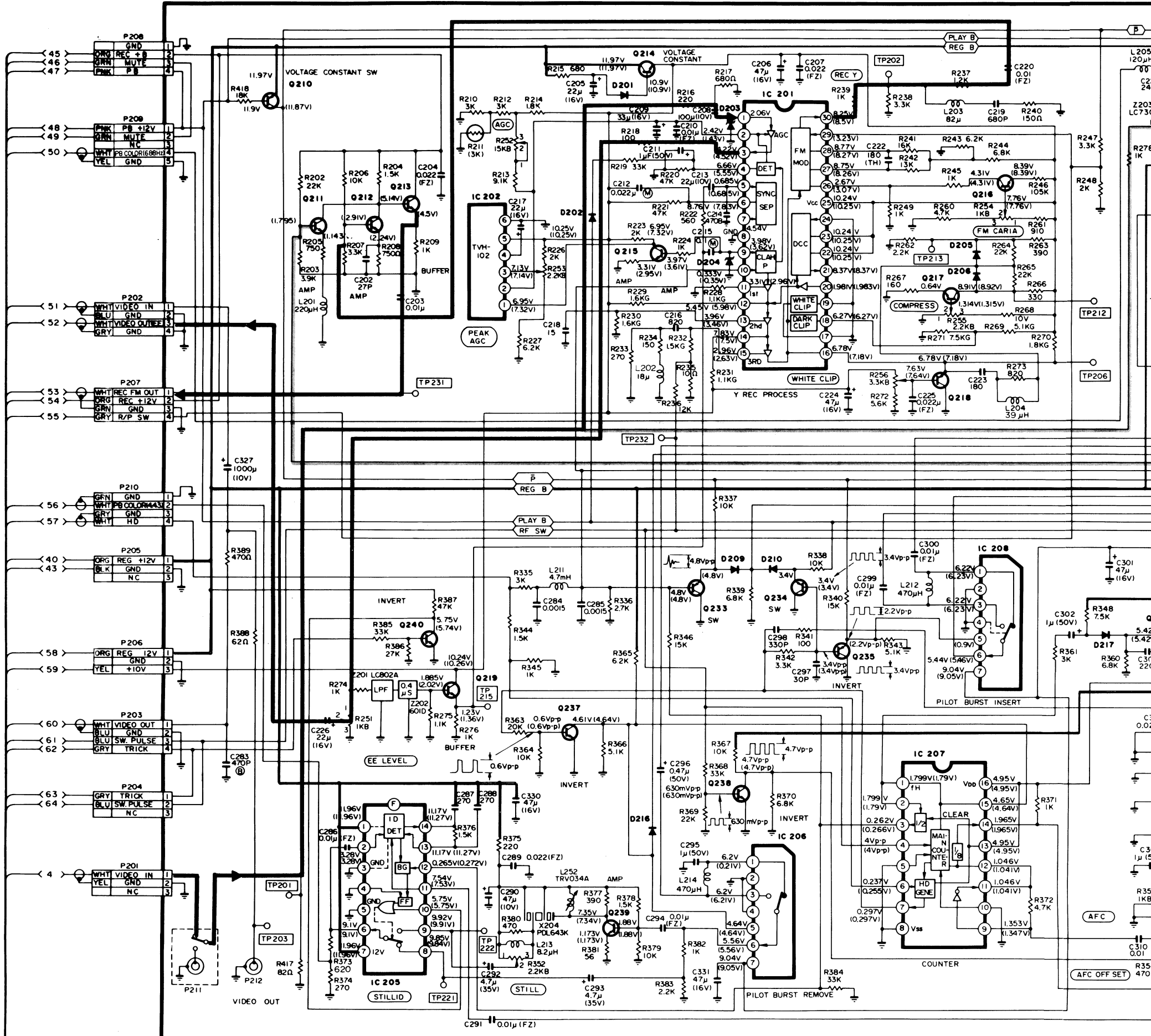
CIRCUIT



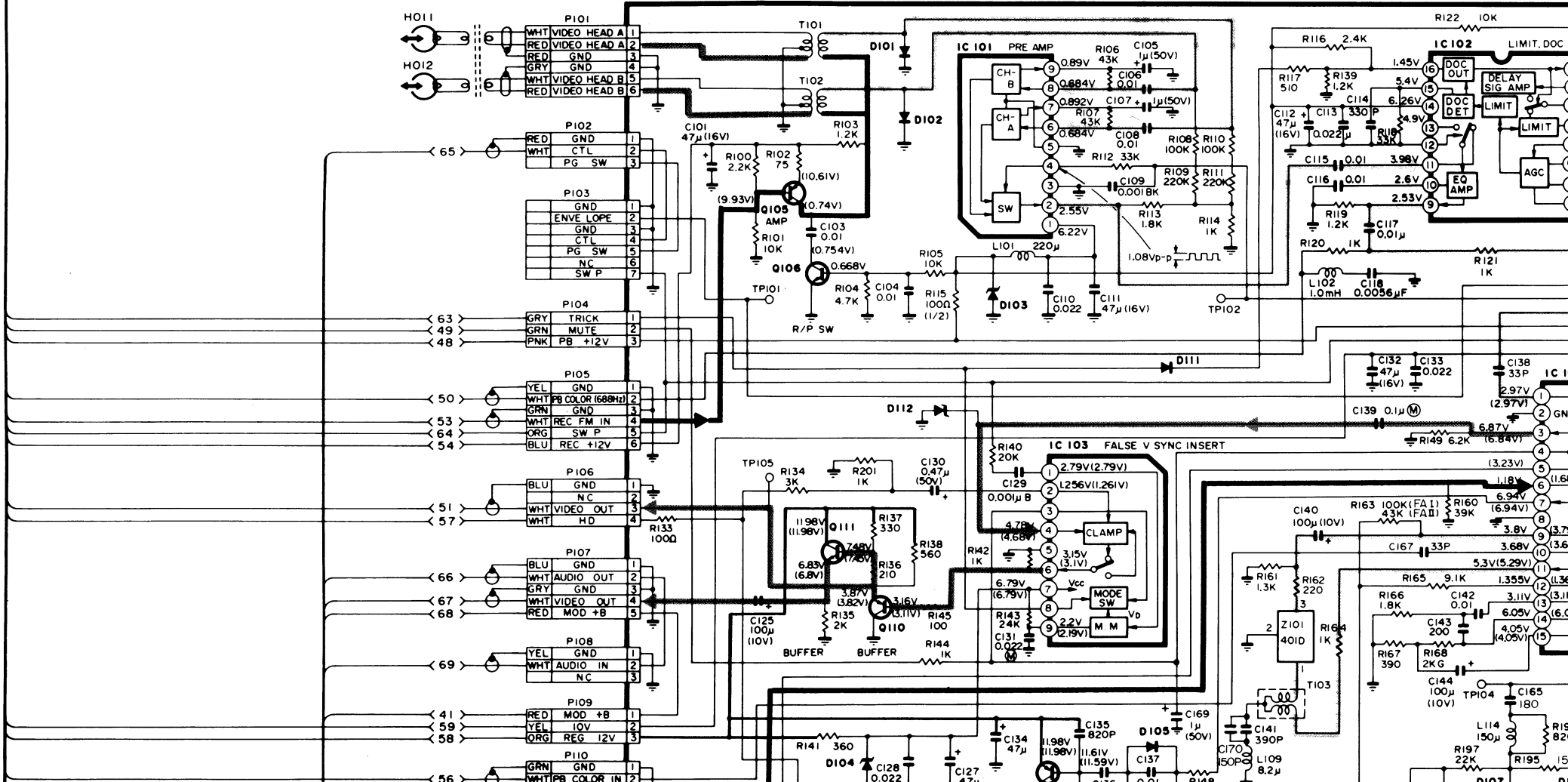
TIMER CONTROL CIRCUIT

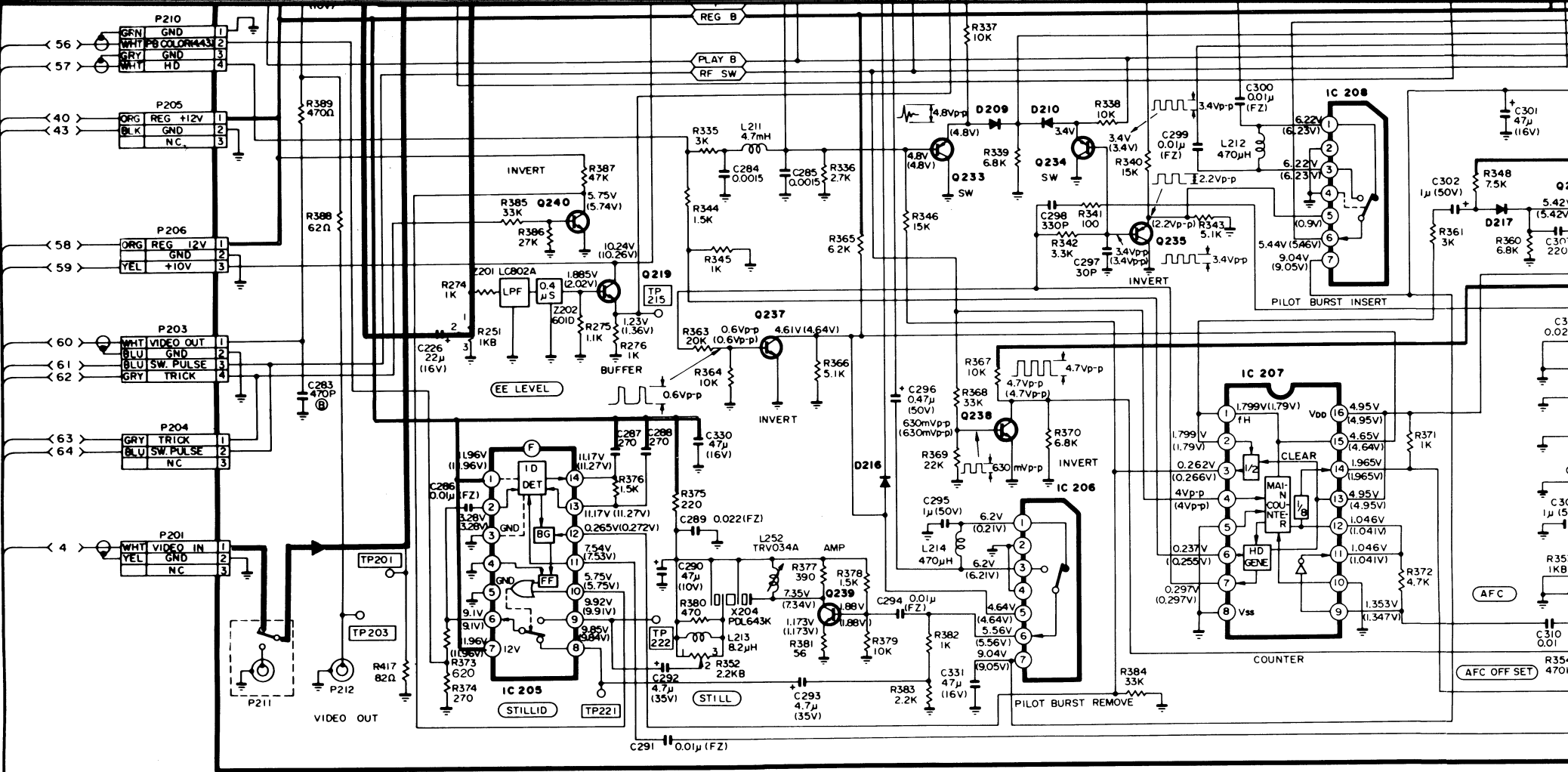


U201 VIDEO CIRCUIT

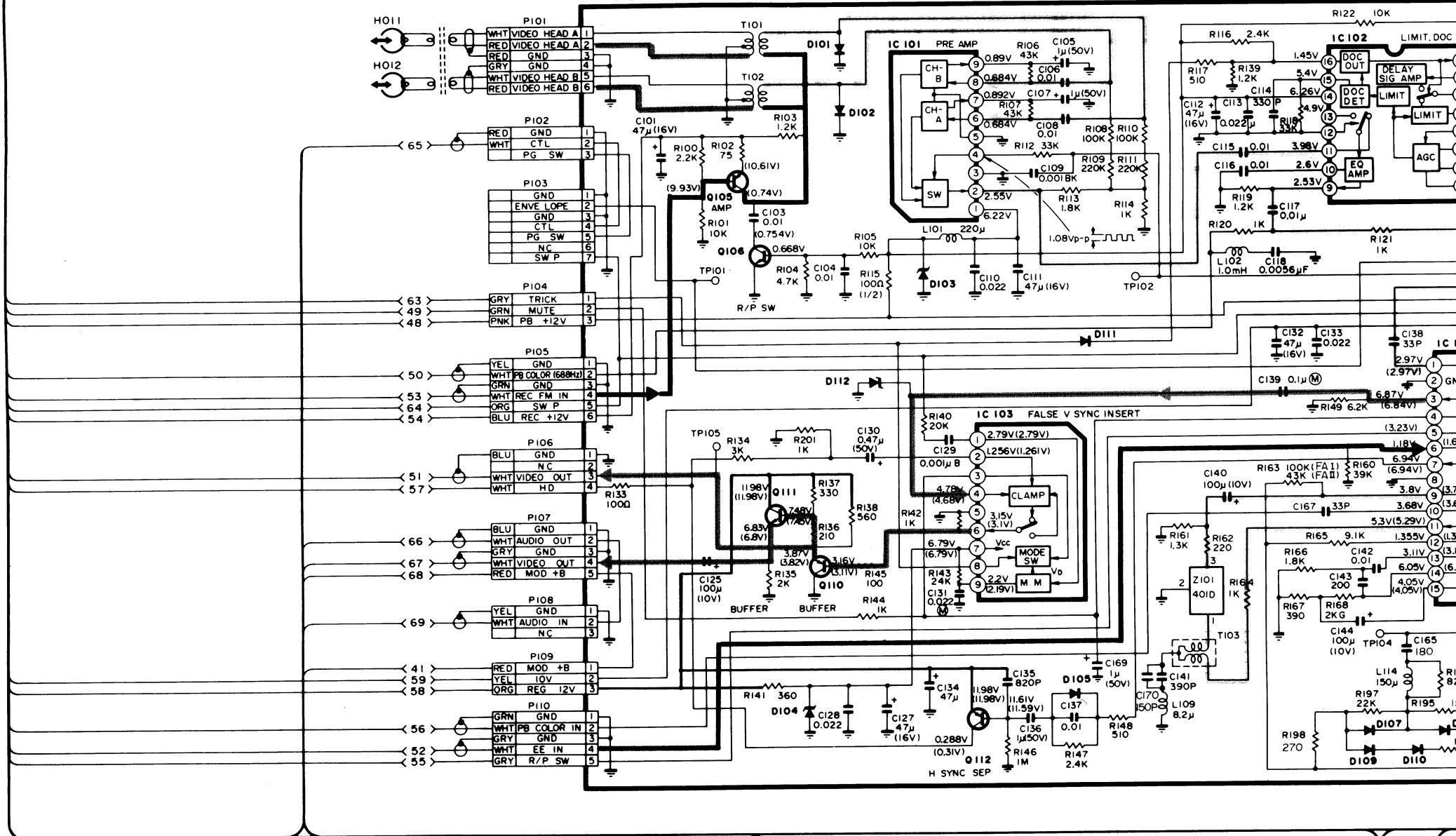


U301 VIDEO 2 CIRCUIT

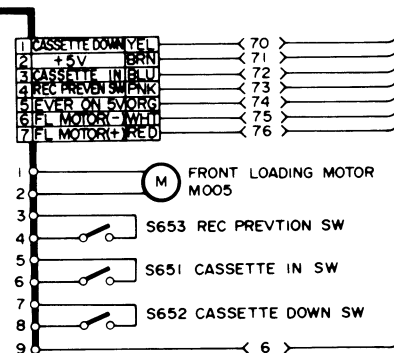




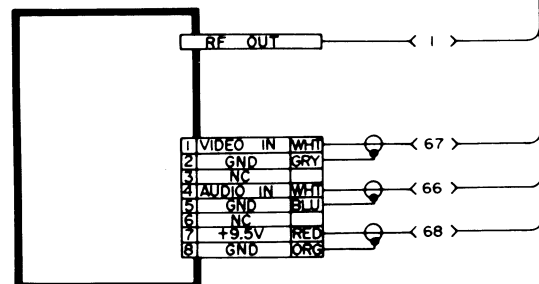
U301 VIDEO 2 CIRCUIT



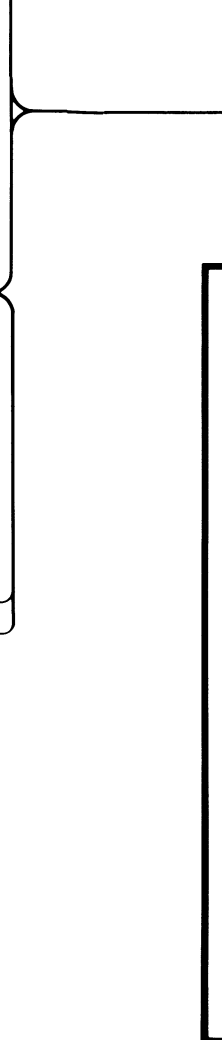
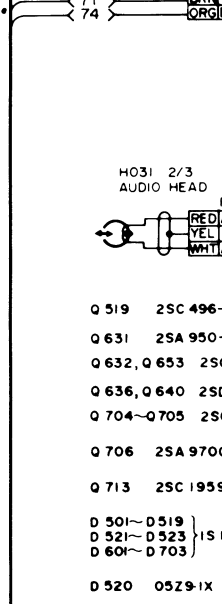
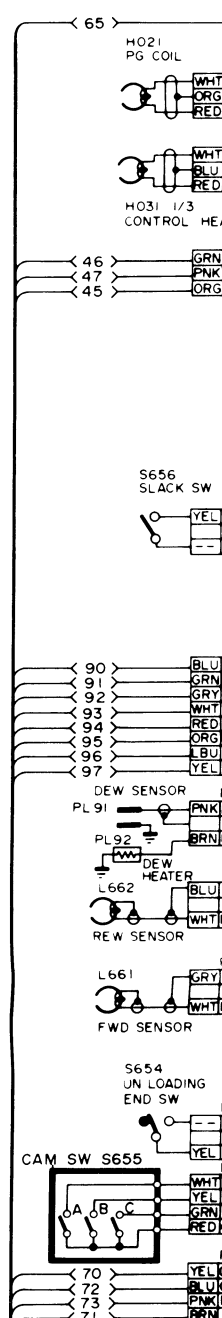
FRONT LOADING

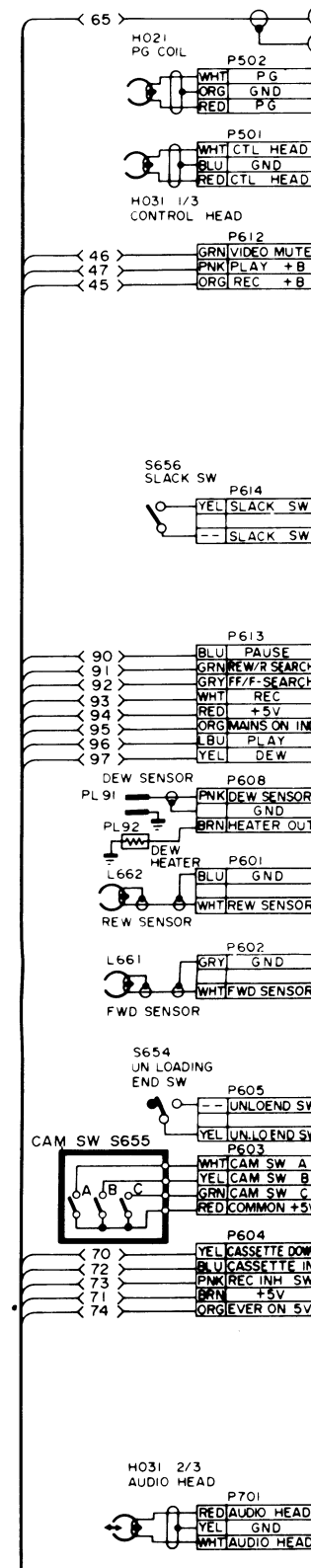
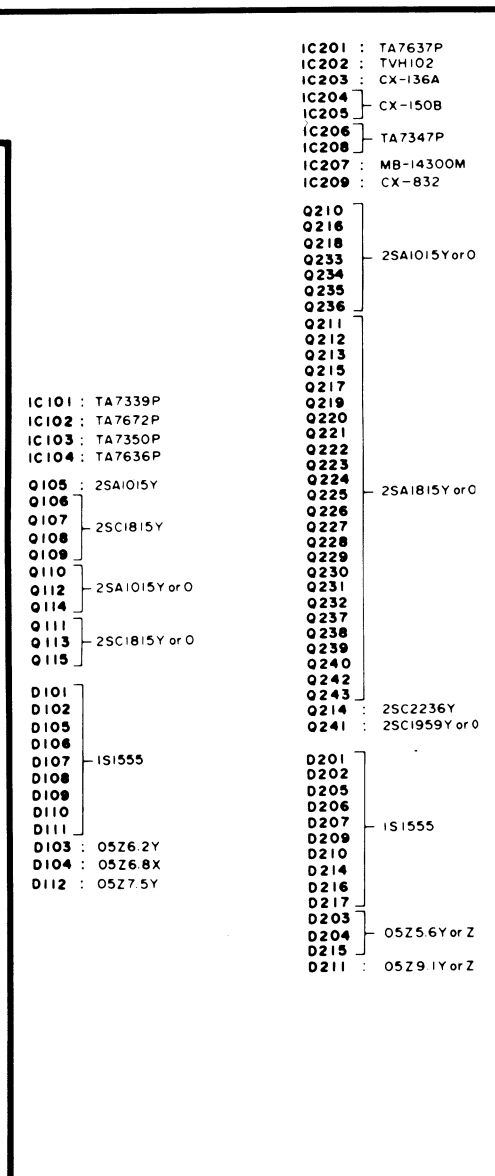


RF MODULATOR

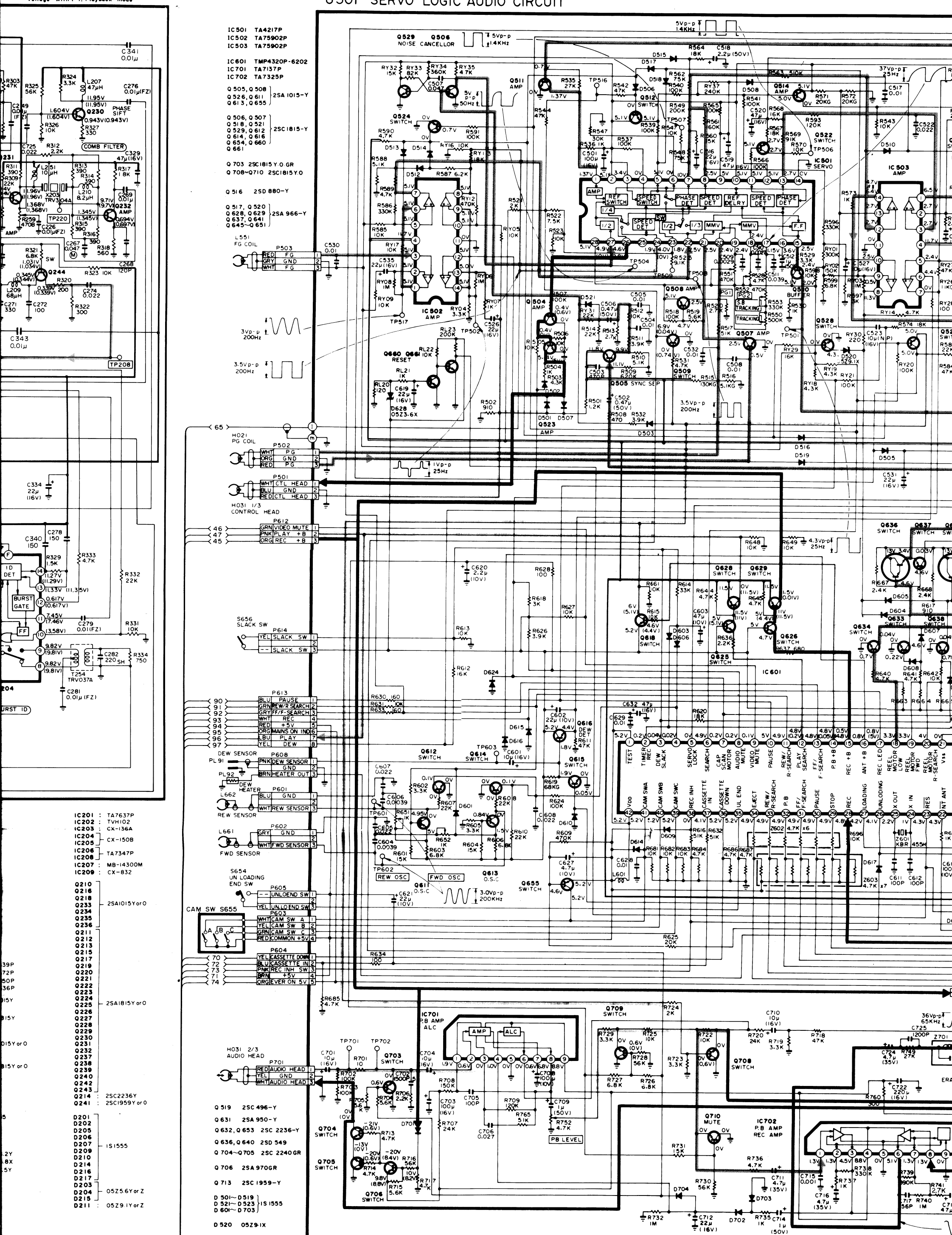


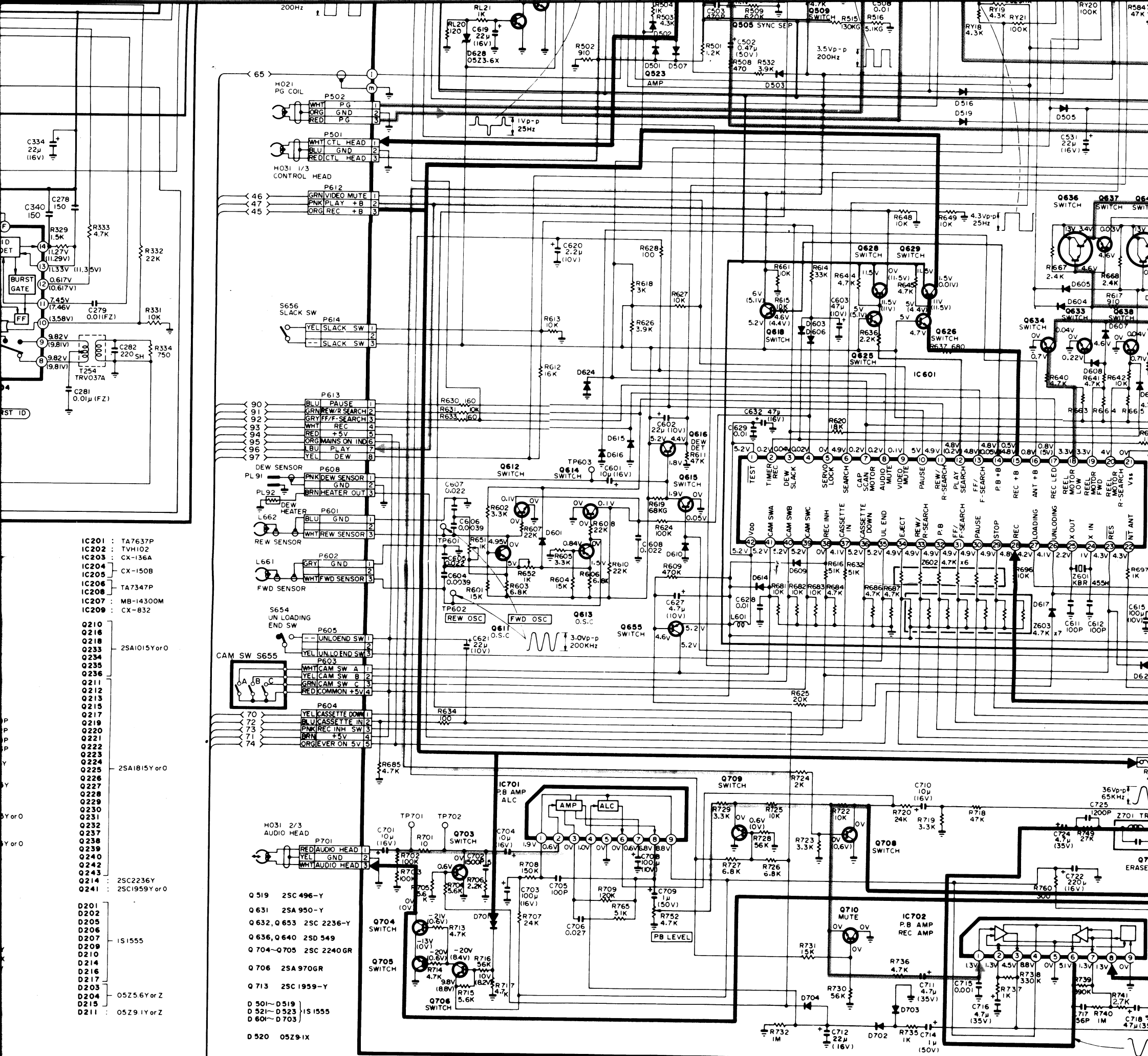
- + B
- REC. signal, SERVO DRIVE
- PB. signal, SERVO BRAKE
- REC. PB signal
- REC. Y signal
- PB. Y signal



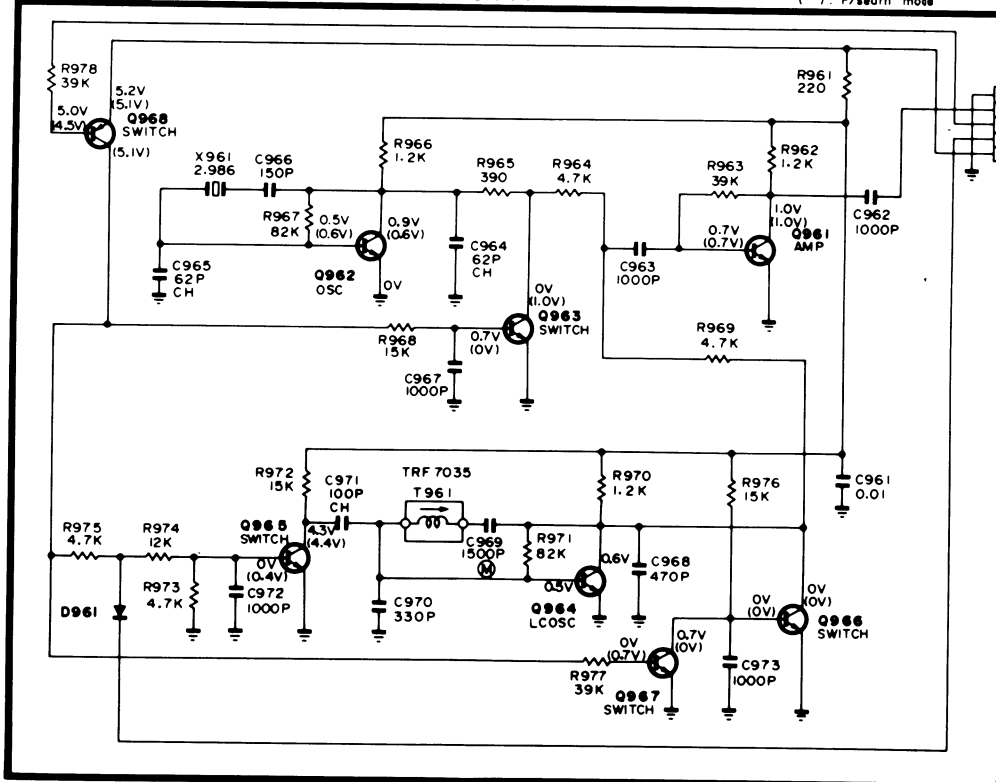


U501 SERVO LOGIC AUDIO CIRCUIT

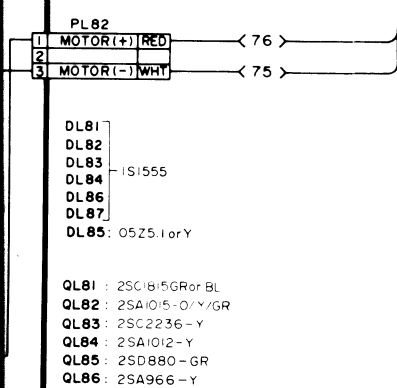
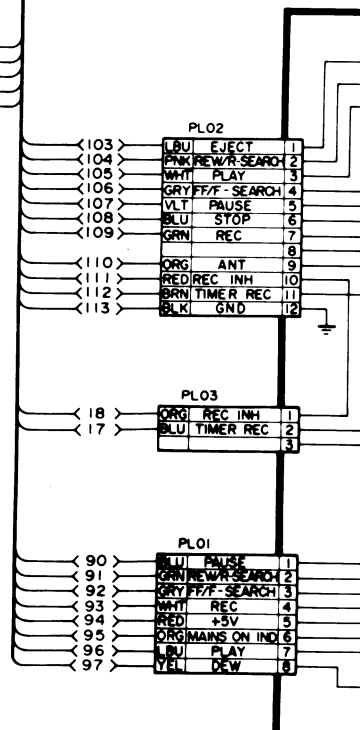


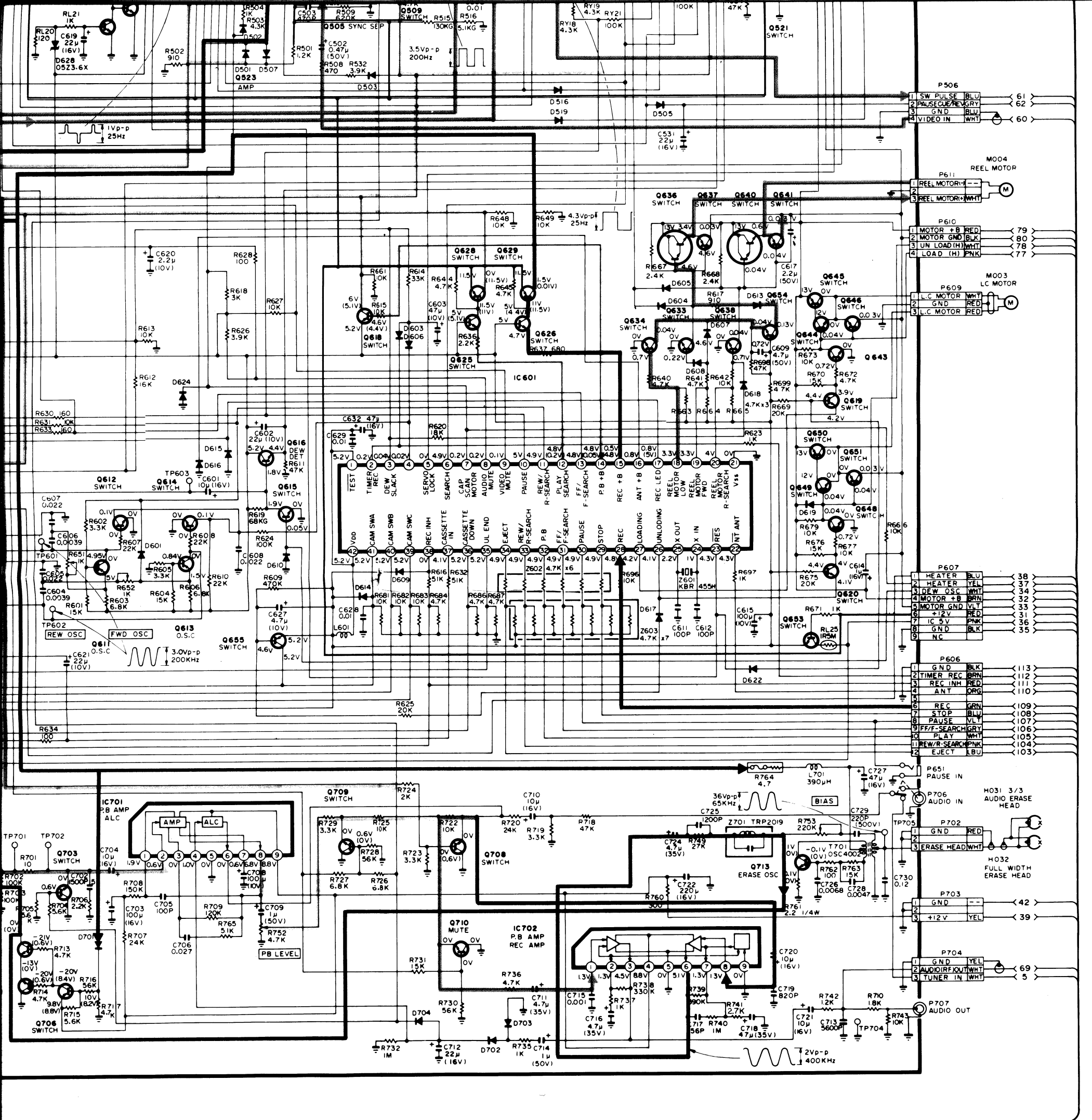


U961 SERVO CLOCK CIRCUIT

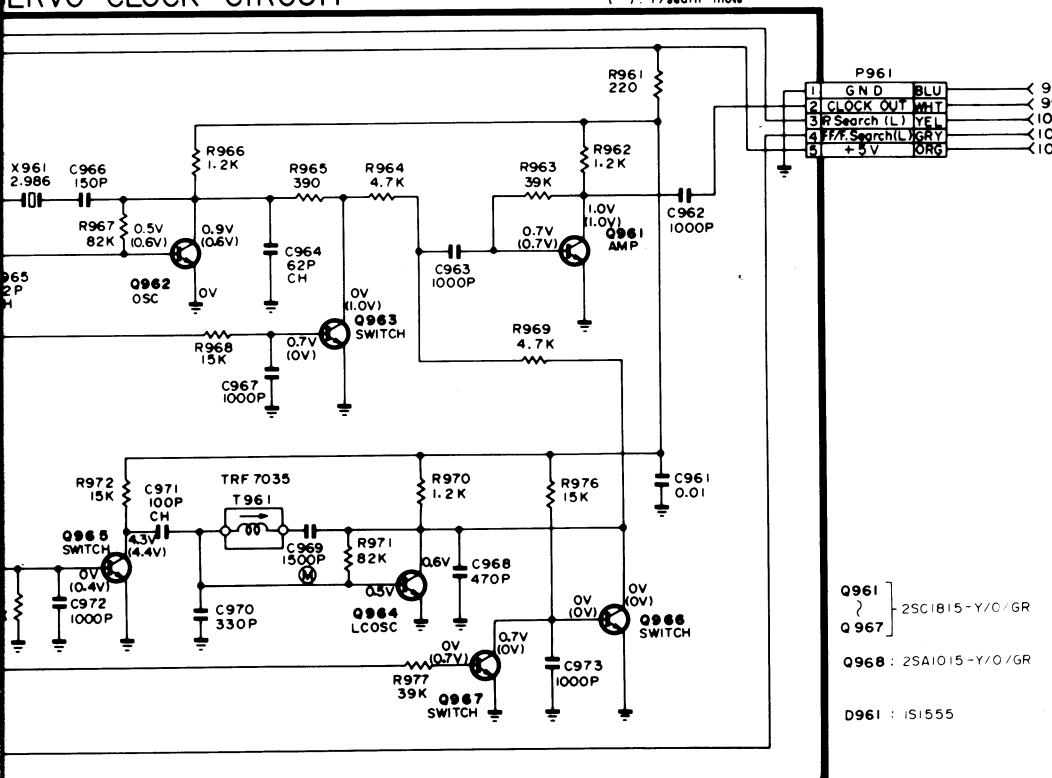


U101

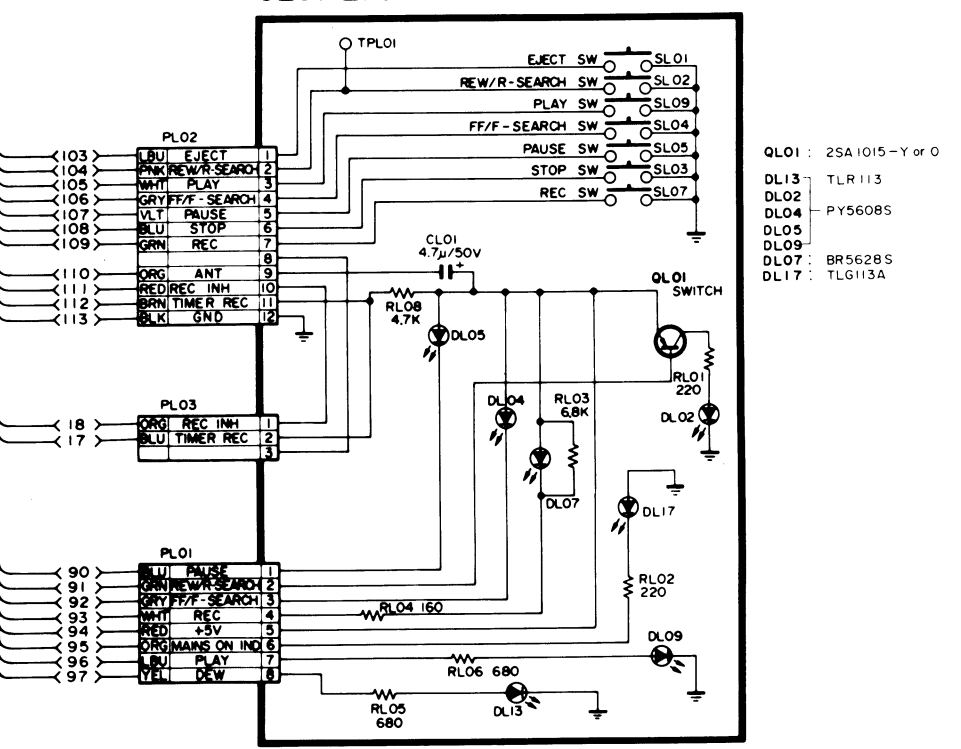




SERVO CLOCK CIRCUIT



UL01 LOGIC CONTROL CIRCUIT



SERVO LOGIC AUDIO CIRCUIT

Voltage : Recording mode
Voltage With () : Playback mode

